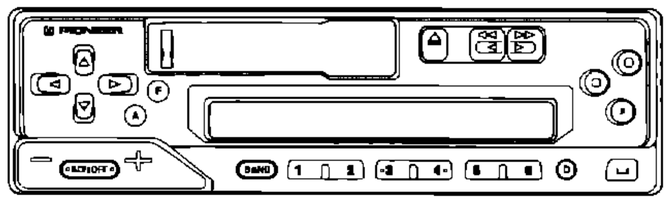
# Service Manual

PIONEER®
*The Art of Entertainment*

• KEH-P3600R/X1M/EW



ORDER NO.
**CRT1950**

MULTI-CD CONTROL HIGH POWER CASSETTE FM/AM TUNER

# KEH-P3600R X1M/EW
# KEH-P3630R X1M/EW

**NOTE:**

- **See the separate manual CX-644(CRT1800) for the cassette mechanism description.**
- **The cassette mechanism assy employed in this model is one of X-2M series**
- **This model has no CD test mode.**
  **For the operations in the CD test mode, refer to the CD player's Service Manual.**

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K-FFU. JAN. 1997 Printed in Japan

# 1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.
If you are not qualified to perform the repair of this product properly and safely, you should mot risk trying to do so and refer the repair to a qualified service technician.

# 2. EXPLODED VIEWS AND PARTS LIST

## 2.1 PACKING

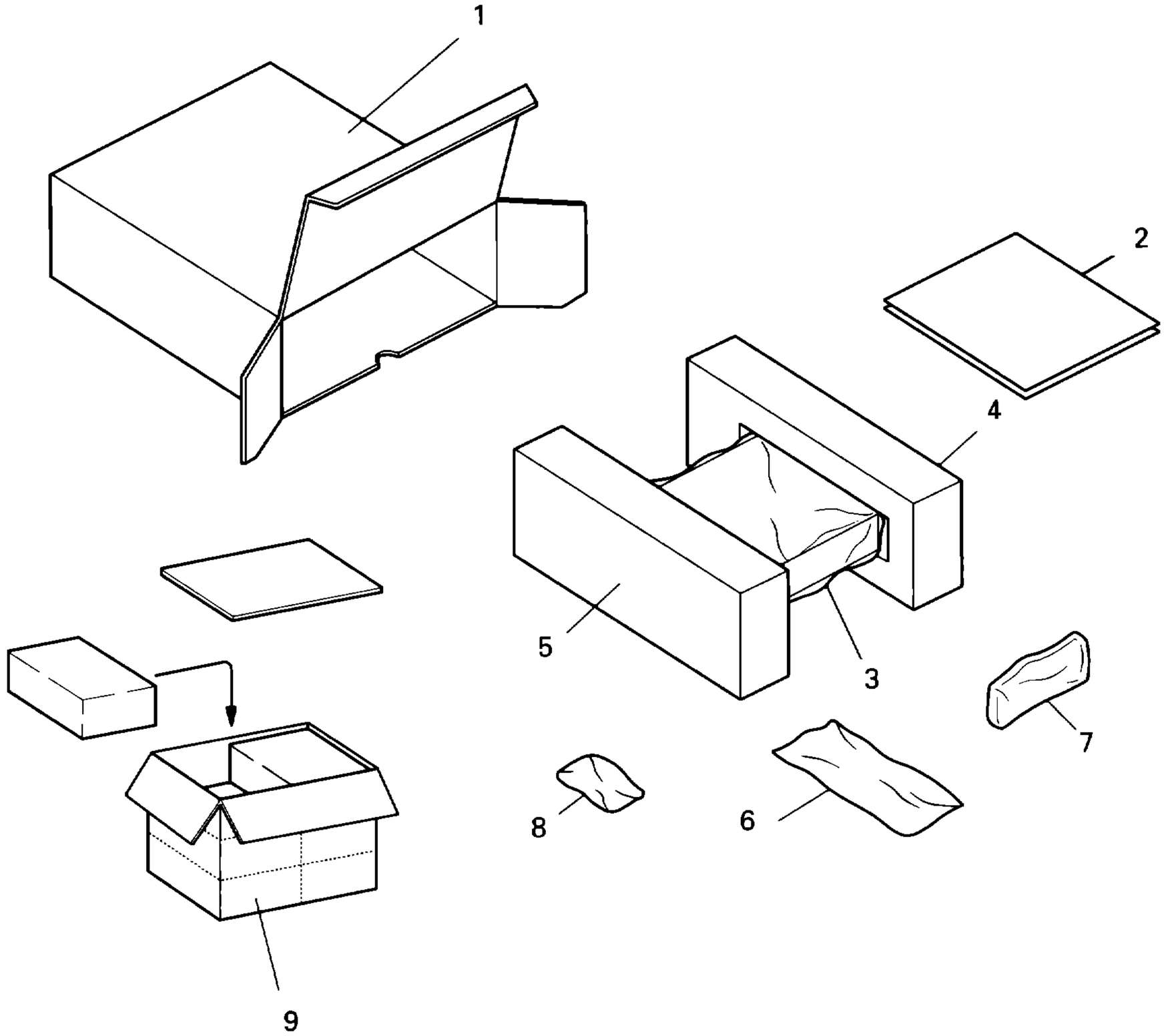



Fig. 1

**NOTE:**

- Parts marked by " * "are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ▼ mark on the product are used for disassembly.

- **Parts List**

| Mark | No. | Description | KEH-P3600R/X1M/EW Part No. | KEH-P3630R/X1M/EW Part No. |
|---|---|---|---|---|
| | 1 | Carton | CHG3166 | CHG3171 |
| | 2-1 | Owner's Manual | CRD2192 | CRD2192 |
| | 2-2 | Owner's Manual | CRD2280 | CRD2280 |
| | 2-3 | Owner's Manual | CRD2281 | CRD2281 |
| | 2-4 | Installation Manual | CRD2193 | CRD2193 |
| * | 2-5 | Warranty Card | CRY1087 | CRY1087 |
| * | 2-6 | Passport | CRY1013 | CRY1013 |
| | 3 | Polyethylene Bag | CEG-162 | CEG-162 |
| | 4 | Protector | CHP1622 | CHP1622 |
| | 5 | Protector | CHP1623 | CHP1623 |
| | 6 | Cord Assy | CDE5286 | CDE5286 |
| | 7 | Case Assy | CXB1063 | CXB1063 |
| | 8 | Accessory Assy | CEA1917 | CEA1917 |
| | 9 | Contain Box | CHL3166 | CHL3171 |

## ● Owner's Manual, Installation Manual

| Model | Part No. | Language |
|---|---|---|
| KEH-P3600R/X1M/EW<br>KEH-P3630R/X1M/EW | CRD2192 | English, Spanish |
| | CRD2280 | German, French |
| | CRD2281 | Italian, Dutch |
| | CRD2193 | English, Spanish, German, French<br>Italian, Dutch |

## ● Accessory Assy

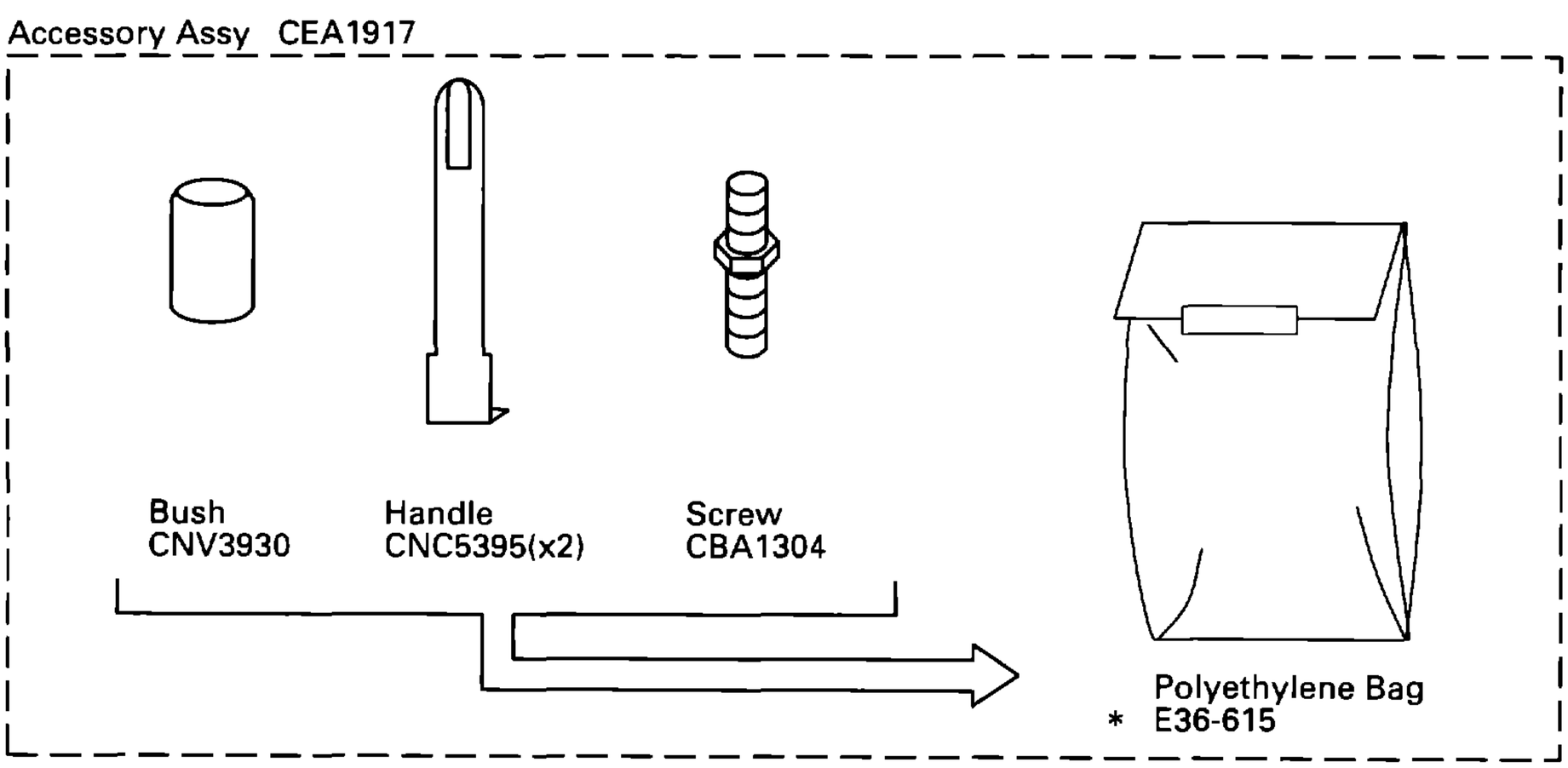



Fig. 2

## 2.2 EXTERIOR

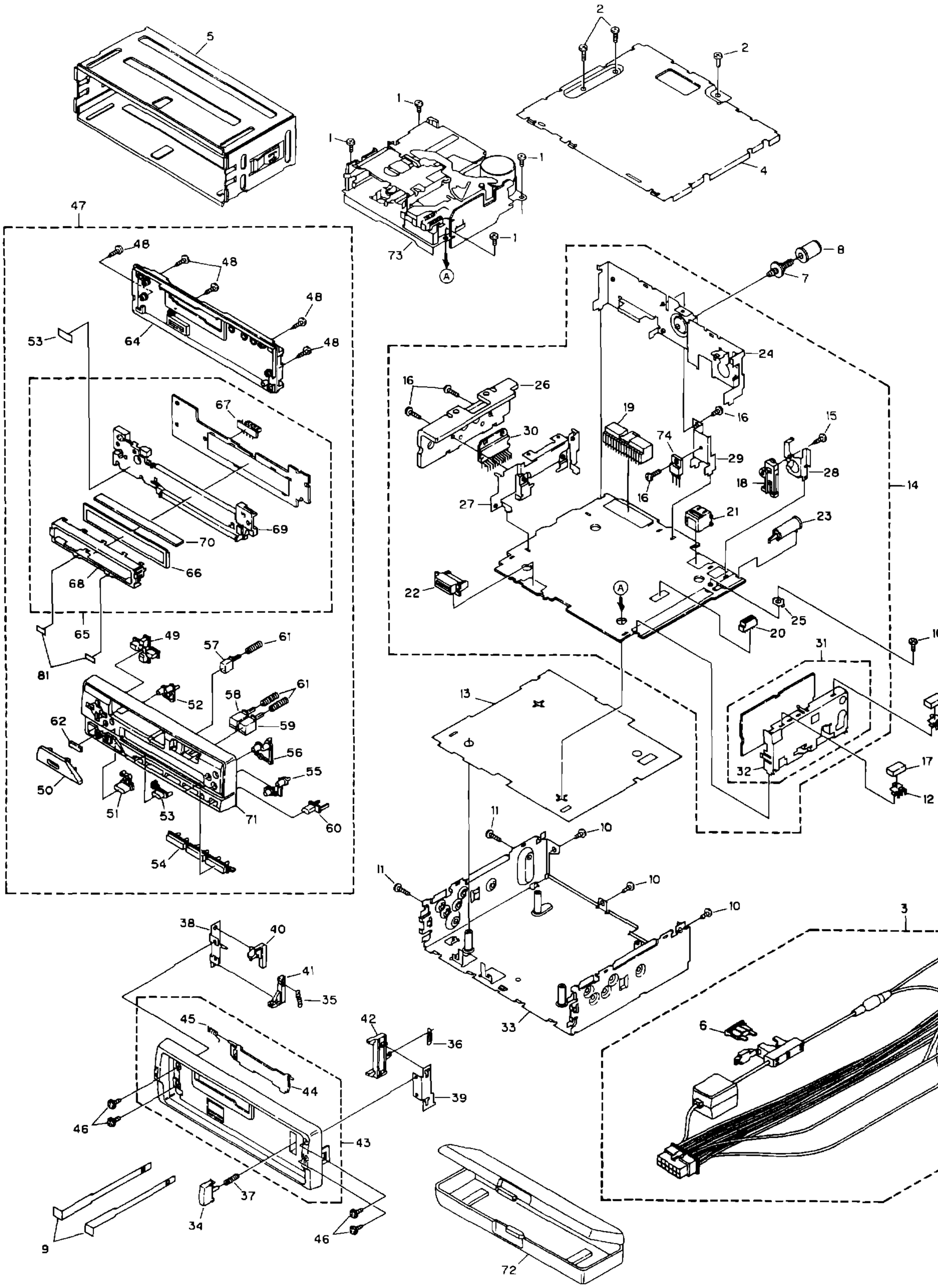



Fig. 3

## ● Parts List(KEH-P3600R/X1M/EW)

| Mark No. | Description | Part No. |
|---|---|---|
| 1 | Screw | BSZ26P050FMC |
| 2 | Screw | BSZ30P100FMC |
| 3 | Cord Assy | CDE5286 |
| 4 | Case | CNB2074 |
| 5 | Holder | CNC5394 |
| 6 | Fuse(10A) | CEK1136 |
| 7 | Screw | CBA1304 |
| 8 | Bush | CNV3930 |
| 9 | Handle | CNC5395 |
| 10 | Screw | BSZ30P060FMC |
| 11 | Screw | BSZ30P100FMC |
| 12 | Holder | CNC5704 |
| 13 | Insulator | CNM5025 |
| 14 | Tuner Amp Unit | CWM5171 |
| 15 | Screw | BPZ26P080FMC |
| 16 | Screw | BSZ26P080FMC |
| 17 | Cushion | CNM4870 |
| 18 | Pin Jack(CN401) | CKB1028 |
| 19 | Plug(CN601) | CKM1226 |
| 20 | Connector(CN604) | CKS3362 |
| 21 | Connector(CN602) | CKS3408 |
| 22 | Connector(CN603) | CKS3581 |
| 23 | Antenna Jack(CN301) | CKX1056 |
| 24 | Panel | CNB2109 |
| 25 | Holder | CNC5399 |
| 26 | Heat Sink | CNC6217 |
| 27 | Holder | CNC6372 |
| 28 | Holder | CNC6531 |
| 29 | Holder | CNC6845 |
| 30 | IC(IC501) | HA13155 |
| 31 | FM/AM Tuner Unit | CWE1416 |
| 32 | Holder | CNC6555 |
| 33 | Chassis Unit | CXA9637 |
| 34 | Button | CAC4836 |
| 35 | Spring | CBH1834 |
| 36 | Spring | CBH1835 |
| 37 | Spring | CBH1933 |
| 38 | Bracket | CNC6135 |
| 39 | Bracket | CNC6791 |
| 40 | Arm | CNV4692 |
| 41 | Arm | CNV4693 |
| 42 | Arm | CNV4728 |
| 43 | Panel Unit | CXA9847 |
| 44 | Door | CAT1814 |
| 45 | Spring | CBH1838 |

| Mark No. | Description | Part No. |
|---|---|---|
| 46 | Screw | IMS20P030FZK |
| 47 | Detach Grille Assy | CXA9986 |
| 48 | Screw | BPZ20P120FZK |
| 49 | Button | CAC4859 |
| 50 | Button(-,+) | CAC4860 |
| 51 | Button(SOURCE) | CAC4861 |
| 52 | Button(F,A) | CAC4862 |
| 53 | Button(BAND) | CAC4863 |
| 54 | Button(1-6) | CAC4864 |
| 55 | Button | CAC4865 |
| 56 | Button | CAC4866 |
| 57 | Button( ⏏ ) | CAC4867 |
| 58 | Button( ⏪ ) | CAC4868 |
| 59 | Button( ⏩ ) | CAC4869 |
| 60 | Button( ⏏ ) | CAC4870 |
| 61 | Spring | CBH1836 |
| 62 | Cushion | CNM5156 |
| 63 | Cushion | CNM5271 |
| 64 | Cover | CNS4180 |
| 65 | Key Board Unit | CWM5181 |
| 66 | LCD(LCD901) | CAW1383 |
| 67 | Connector(CN901) | CKS3580 |
| 68 | Holder | CNC6831 |
| 69 | Lighting Conductor | CNV4753 |
| 70 | Connector | CNV4754 |
| 71 | Grille Unit | CXA9837 |
| 72 | Case Assy | CXB1063 |
| 73 | Cassette Mechanism Assy | EXK3475 |
| 74 | Transistor(Q801) | 2SD2037 |

## ● Parts List(KEH-P3630R/X1M/EW)

| Mark No. | Description | Part No. |
|---|---|---|
| 1 | Screw | BSZ26P050FMC |
| 2 | Screw | BSZ30P100FMC |
| 3 | Cord Assy | CDE5286 |
| 4 | Case | CNB2074 |
| 5 | Holder | CNC5394 |
| 6 | Fuse(10A) | CEK1136 |
| 7 | Screw | CBA1304 |
| 8 | Bush | CNV3930 |
| 9 | Handle | CNC5395 |
| 10 | Screw | BSZ30P060FMC |
| 11 | Screw | BSZ30P100FMC |
| 12 | Holder | CNC5704 |
| 13 | Insulator | CNM5025 |
| 14 | Tuner Amp Unit | CWM5172 |
| 15 | Screw | BPZ26P080FMC |
| 16 | Screw | BSZ26P080FMC |
| 17 | Cushion | CNM4870 |
| 18 | Pin Jack(CN401) | CKB1028 |
| 19 | Plug(CN601) | CKM1226 |
| 20 | Connector(CN604) | CKS3362 |
| 21 | Connector(CN602) | CKS3408 |
| 22 | Connector(CN603) | CKS3581 |
| 23 | Antenna Jack(CN301) | CKX1056 |
| 24 | Panel | CNB2109 |
| 25 | Holder | CNC5399 |
| 26 | Heat Sink | CNC6217 |
| 27 | Holder | CNC6372 |
| 28 | Holder | CNC6531 |
| 29 | Holder | CNC6845 |
| 30 | IC(IC501) | HA13155 |
| 31 | FM/AM Tuner Unit | CWE1416 |
| 32 | Holder | CNC6555 |
| 33 | Chassis Unit | CXA9852 |
| 34 | Button | CAC4836 |
| 35 | Spring | CBH1834 |
| 36 | Spring | CBH1835 |
| 37 | Spring | CBH1933 |
| 38 | Bracket | CNC6135 |
| 39 | Bracket | CNC6791 |
| 40 | Arm | CNV4692 |
| 41 | Arm | CNV4693 |
| 42 | Arm | CNV4728 |
| 43 | Panel Unit | CXA9848 |
| 44 | Door | CAT1835 |
| 45 | Spring | CBH1838 |

| Mark No. | Description | Part No. |
|---|---|---|
| 46 | Screw | IMS20P030FZK |
| 47 | Detach Grille Assy | CXA9987 |
| 48 | Screw | BPZ20P120FZK |
| 49 | Button | CAC4859 |
| 50 | Button(-,+) | CAC4991 |
| 51 | Button(SOURCE) | CAC4861 |
| 52 | Button(F,A) | CAC4862 |
| 53 | Button(BAND) | CAC4863 |
| 54 | Button(1-6) | CAC4992 |
| 55 | Button | CAC4865 |
| 56 | Button | CAC4866 |
| 57 | Button( ⏏ ) | CAC4867 |
| 58 | Button( ⏮ ) | CAC4868 |
| 59 | Button( ⏭ ) | CAC4869 |
| 60 | Button( ⌂ ) | CAC4993 |
| 61 | Spring | CBH1836 |
| 62 | Cushion | CNM5156 |
| 63 | Cushion | CNM5271 |
| 64 | Cover | CNS4181 |
| 65 | Key Board Unit | CWM5182 |
| 66 | LCD(LCD901) | CAW1391 |
| 67 | Connector(CN901) | CKS3580 |
| 68 | Holder | CNC6831 |
| 69 | Lighting Conductor | CNV4753 |
| 70 | Connector | CNV4754 |
| 71 | Grille Unit | CXA9839 |
| 72 | Case Assy | CXB1063 |
| 73 | Cassette Mechanism Assy | EXK3475 |
| 74 | Transistor(Q801) | 2SD2037 |
| 75-80 | ••••• | |
| 81 | Spacer | CNM5319 |

## 2.3 CASSETTE MECHANISM ASSY

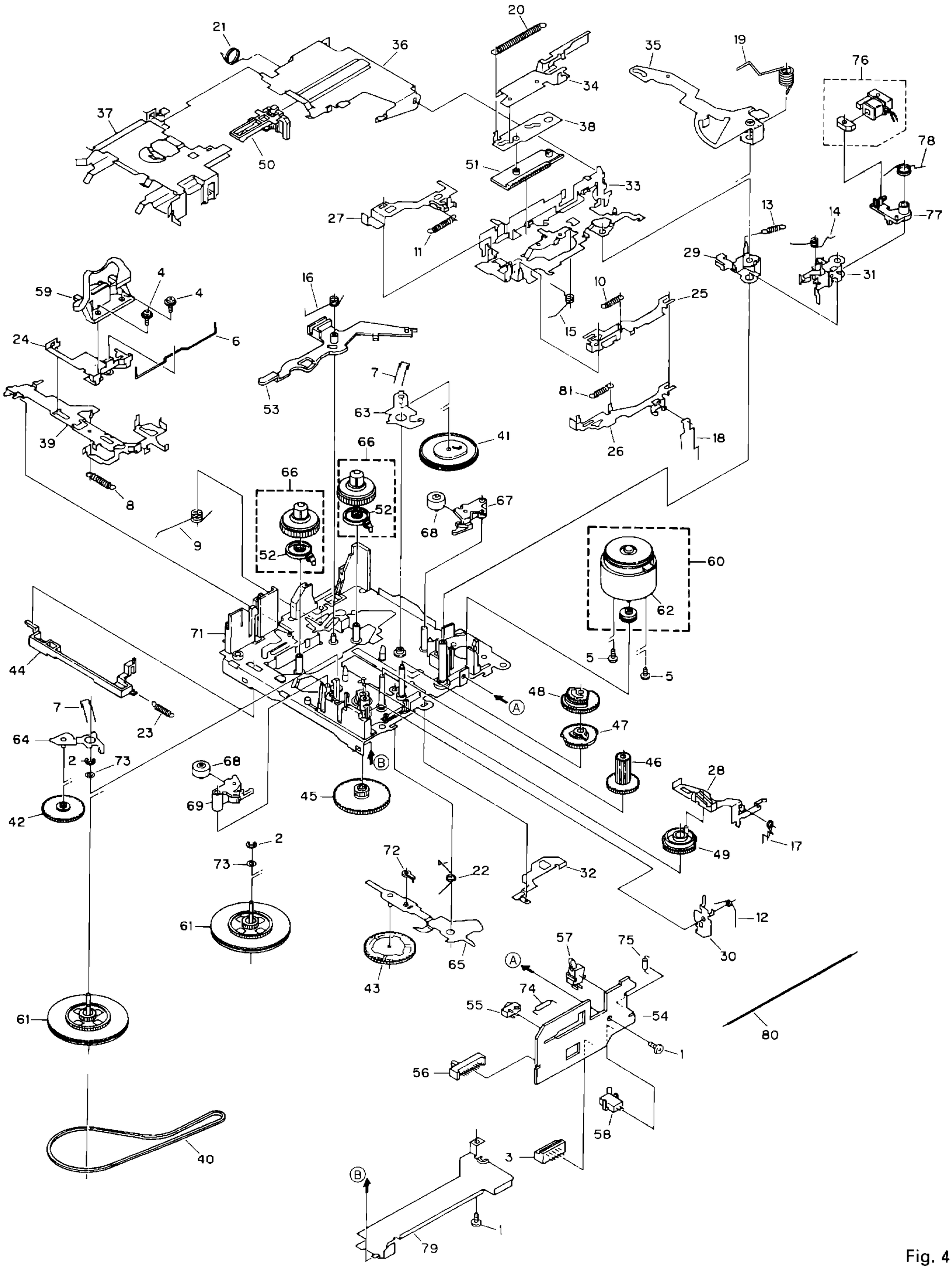



Fig. 4

## ● Parts List

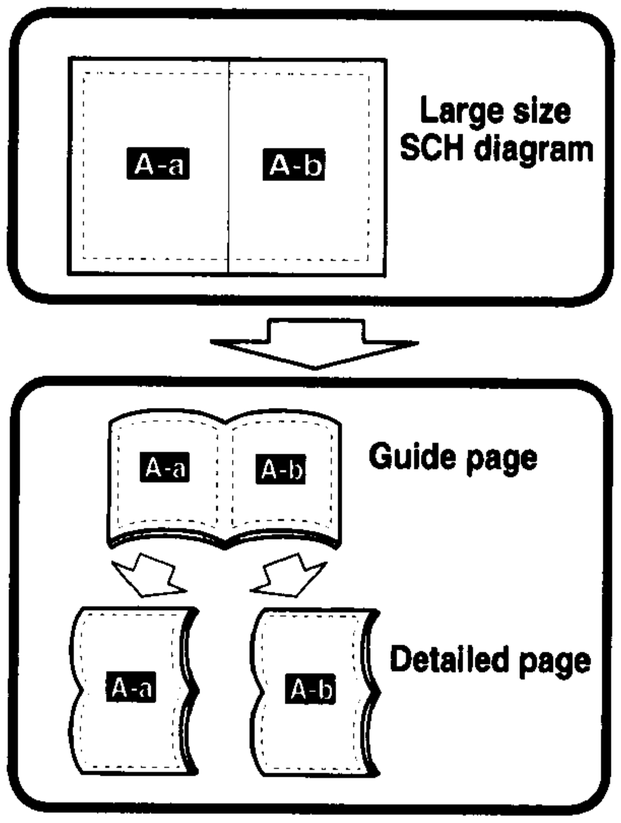
| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 1 | Screw | BSZ23P050FMC |
| | 2 | Washer | CBG1003 |
| | 3 | Connector(CN1) | CKS2829 |
| | 4 | Screw(M2x5) | EBA1028 |
| | 5 | Screw(M2x2.5) | EBA1037 |
| | 6 | Spring | EBH1554 |
| | 7 | Spring | EBH1555 |
| | 8 | Spring | EBH1556 |
| | 9 | Spring | EBH1557 |
| | 10 | Spring | EBH1591 |
| | 11 | Spring | EBH1559 |
| | 12 | Spring | EBH1593 |
| | 13 | Spring | EBH1561 |
| | 14 | Spring | EBH1562 |
| | 15 | Spring | EBH1563 |
| | 16 | Spring | EBH1590 |
| | 17 | Spring | EBH1565 |
| | 18 | Spring | EBH1566 |
| | 19 | Spring | EBH1567 |
| | 20 | Spring | EBH1568 |
| | 21 | Spring | EBH1569 |
| | 22 | Spring | EBH1571 |
| | 23 | Spring | EBH1579 |
| | 24 | Head Base | ENC1457 |
| | 25 | Lever | ENC1429 |
| | 26 | Lever | ENC1430 |
| | 27 | Lever | ENC1431 |
| | 28 | Lever | ENC1432 |
| | 29 | Arm | ENC1433 |
| | 30 | Arm | ENC1434 |
| | 31 | Arm | ENC1435 |
| | 32 | Arm | ENC1476 |
| | 33 | Bracket | ENC1437 |
| | 34 | Lever | ENC1438 |
| | 35 | Arm | ENC1439 |
| | 36 | Frame | ENC1440 |
| | 37 | Holder | ENC1441 |
| | 38 | Lever | ENC1446 |
| | 39 | Lever | ENC1454 |
| | 40 | Belt | ENT1027 |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 41 | Gear | ENV1504 |
| | 42 | Gear | ENV1470 |
| | 43 | Gear | ENV1471 |
| | 44 | Lever | ENV1472 |
| | 45 | Gear | ENV1474 |
| | 46 | Gear | ENV1475 |
| | 47 | Gear | ENV1493 |
| | 48 | Gear | ENV1477 |
| | 49 | Gear | ENV1499 |
| | 50 | Lever | ENV1480 |
| | 51 | Lever | ENV1487 |
| | 52 | Arm | ENV1464 |
| | 53 | Arm | ENV1489 |
| * | 54 | P.C.Board | ENP1148 |
| | 55 | Switch(Eject)(S4) | ESG1002 |
| | 56 | Switch(FWD)(REV)(S3) | ESH1006 |
| | 57 | Switch(Load)(S1) | ESN1016 |
| | 58 | Switch(Mute)(S2) | ESN1017 |
| | 59 | Head Assy(HD1) | EXA1466 |
| | 60 | Motor Unit | EXA1502 |
| | 61 | Flywheel Unit | EXA1505 |
| | 62 | Motor | EXM1028 |
| | 63 | Arm Unit | EXA1447 |
| | 64 | Arm Unit | EXA1448 |
| | 65 | Arm Unit | EXA1449 |
| | 66 | Reel Unit | EXA1450 |
| | 67 | Pinch Holder | ENV1466 |
| | 68 | Pinch Roller | ENV1514 |
| | 69 | Pinch Holder | ENV1467 |
| | 70 | ••••• | |
| | 71 | Chassis Unit | EXA1465 |
| | 72 | Service Arm | EXX1048 |
| | 73 | Washer | HBF-179 |
| | 74 | Resistor(R1) | RD1/4HM472J |
| | 75 | Diode(D1) | F1SR35-100A |
| | 76 | Solenoid(SO1) | EXP1012 |
| | 77 | Arm | ENV1491 |
| | 78 | Spring | EBH1582 |
| | 79 | Cover | ENC1452 |
| | 80 | Cord | EDC1006 |
| | 81 | Spring | EBH1592 |

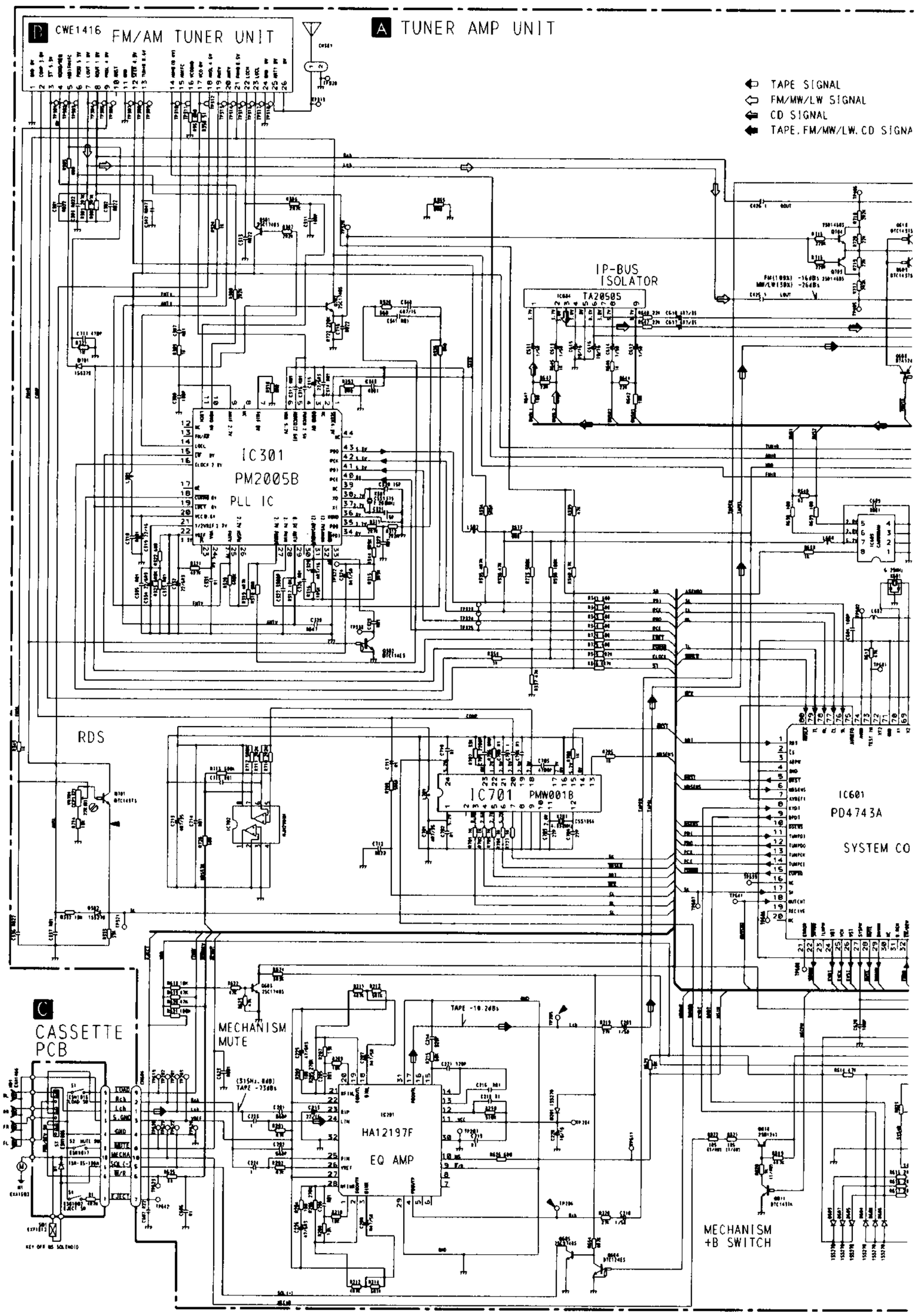
# 3. SCHEMATIC DIAGRAM

## 3.1 OVERALL CONNECTION DIAGRAM (GUIDE PAGE)

**Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".**




A-a






A-c

A-b

NOTE

Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.

Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as
2.2→2R2
0.022→R022

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

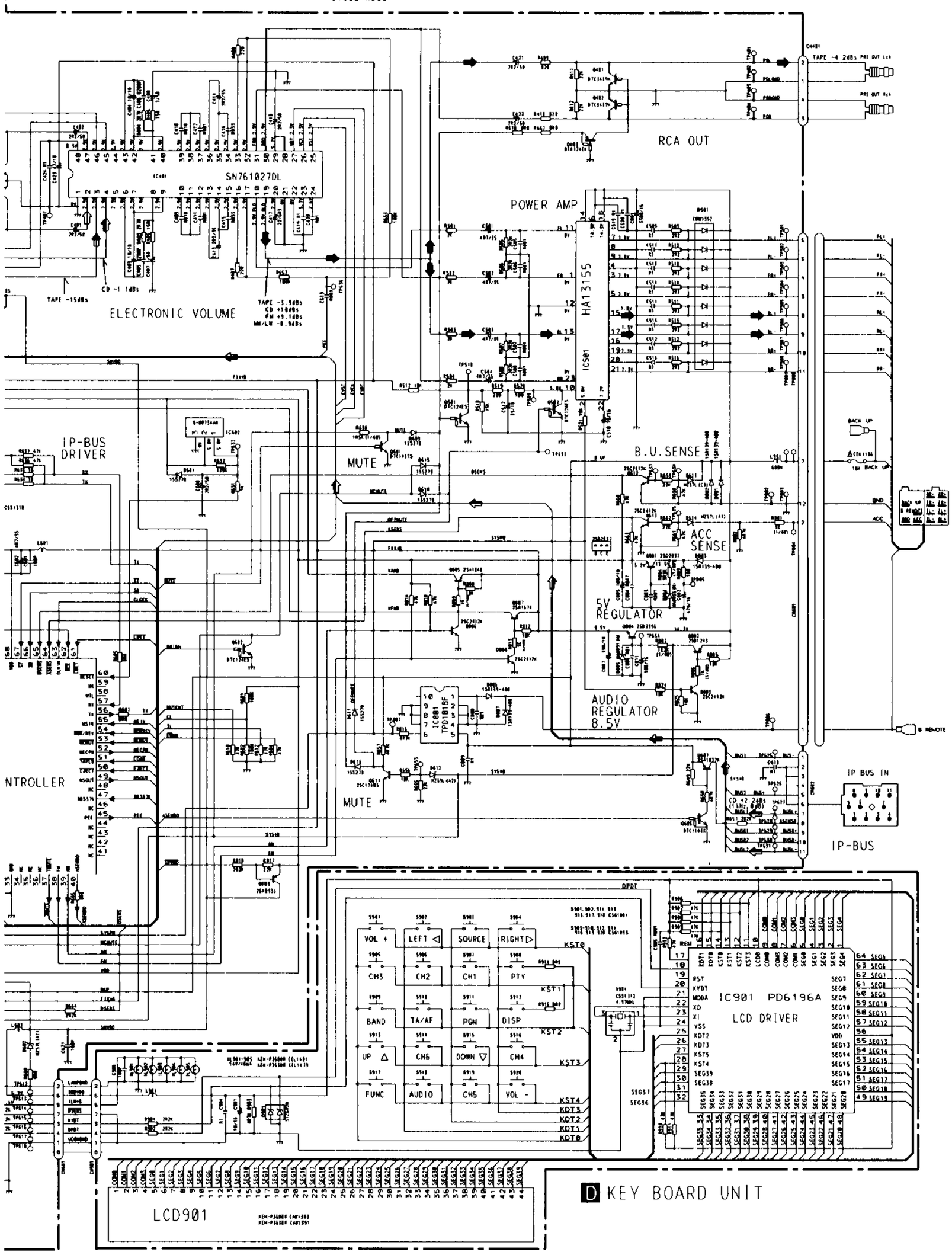



Fig. 5

A-b

A-a

TAPE SIGNAL
FM/MW/LW SIGNAL
CD SIGNAL
TAPE, FM/MW/LW, CD SIGNAL

A TUNER AMP UNIT

B CWE1416 FM/AM TUNER UNIT



A-a

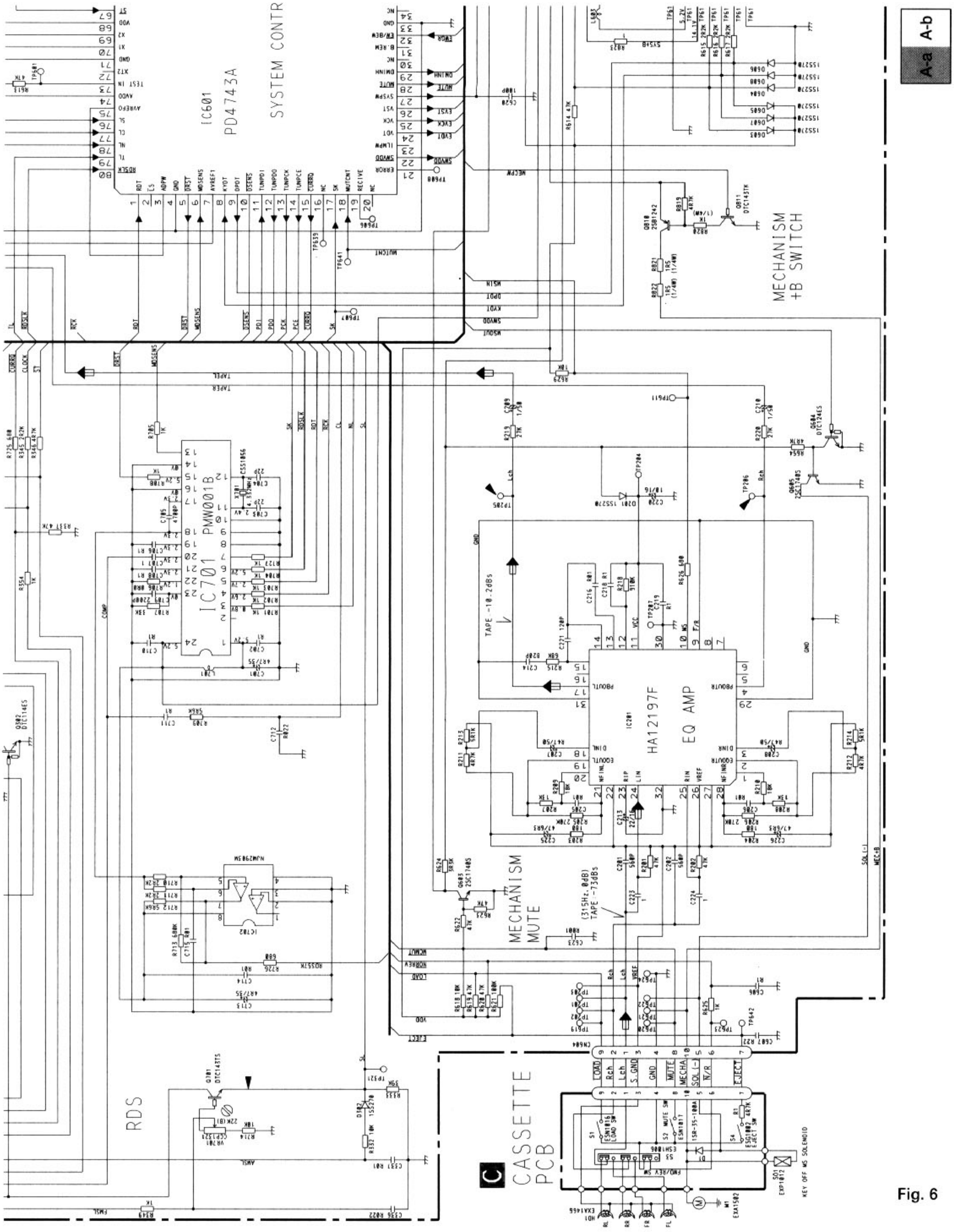
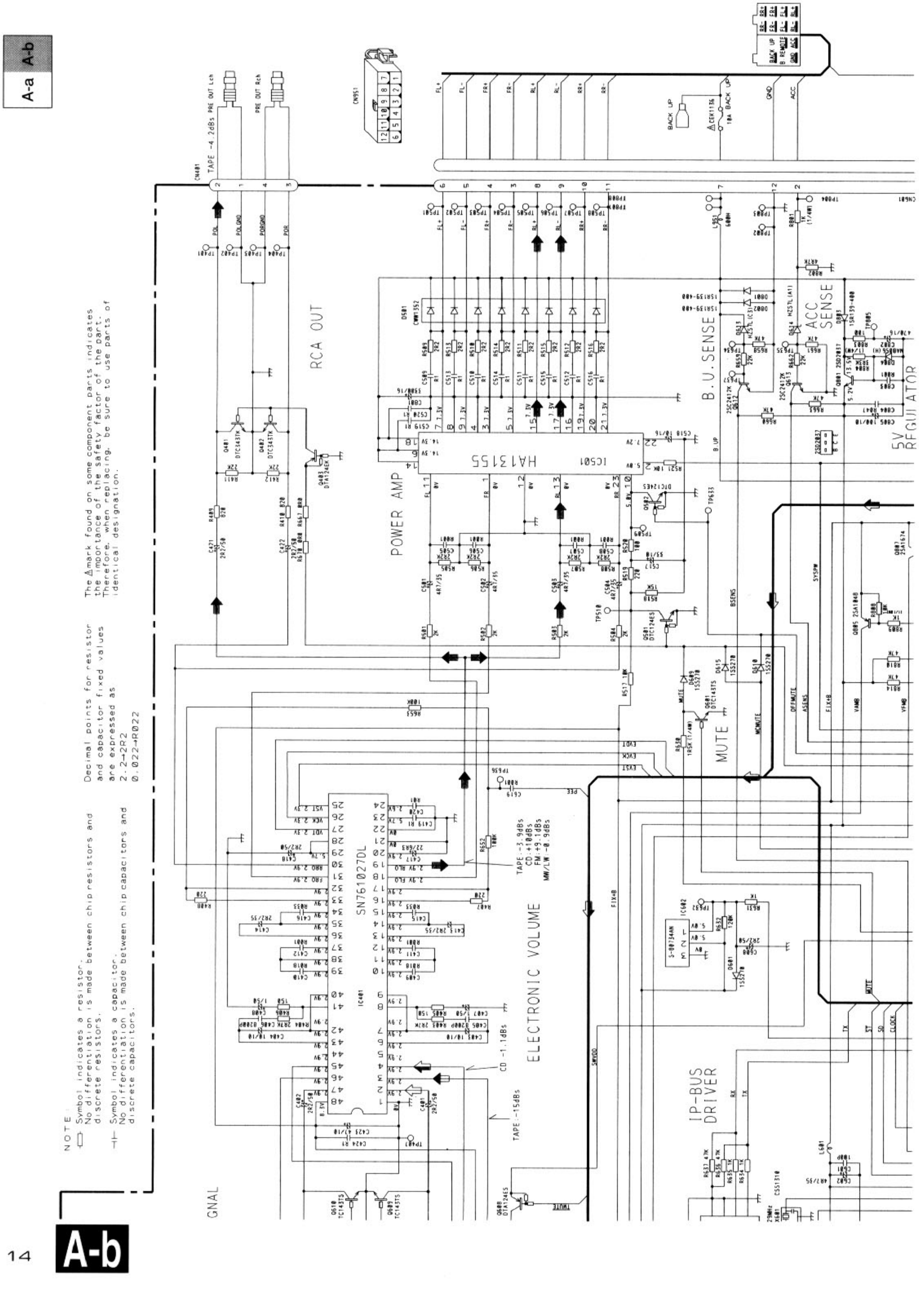

SYSTEM CONTR
IC601
PD4743A
IC701 PMW001B
HA12197F EQ AMP
IC201
MECHANISM +B SWITCH
MECHANISM MUTE
CASSETTE PCB
RDS
A-b
A-a

Fig. 6

A-a A-b




NOTE:
- ⊐ Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- ⊣ Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

Decimal points for resistor and capacitor fixed values are expressed as
2.2→2R2
0.022→R022

A-a A-b

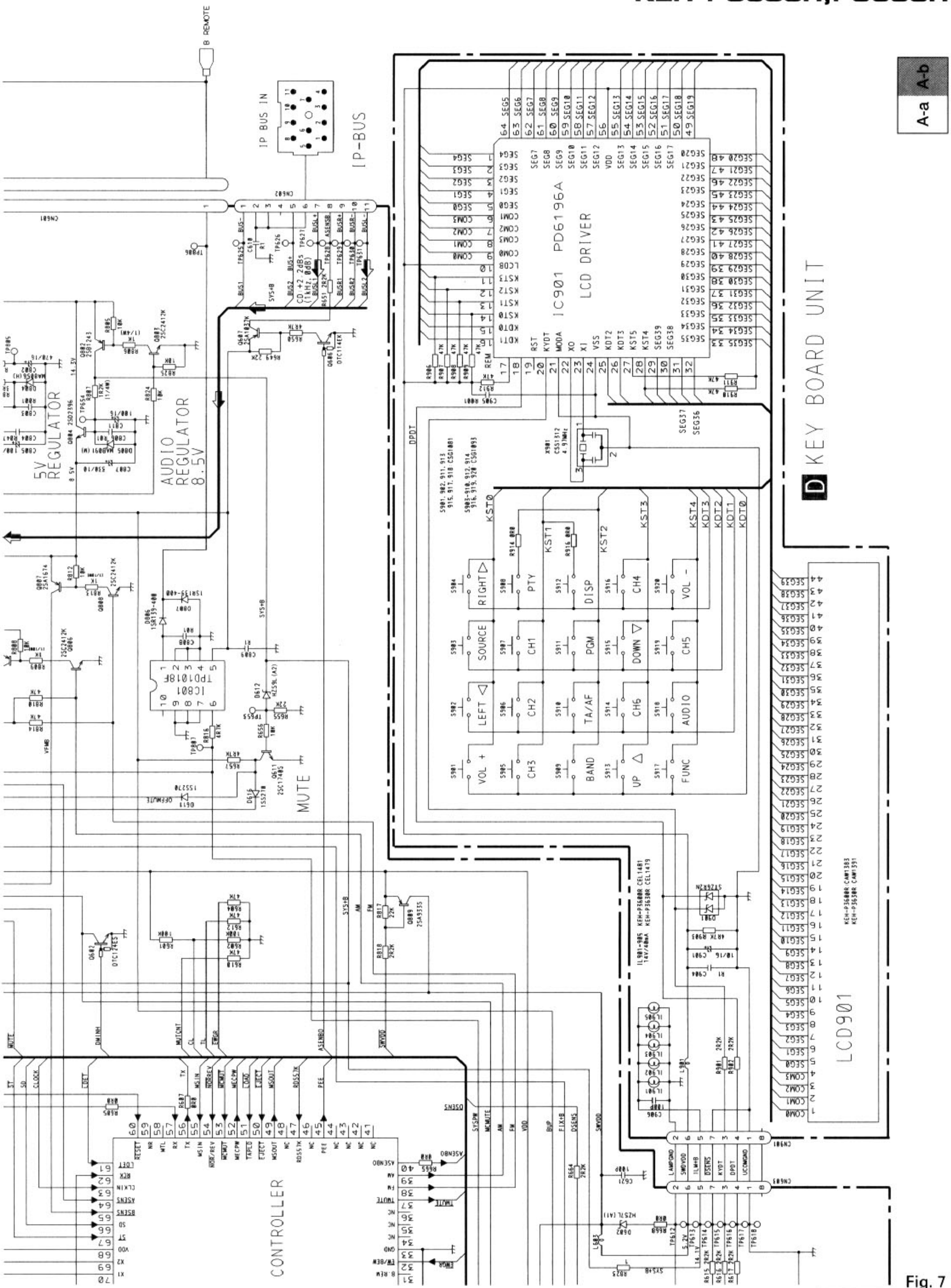
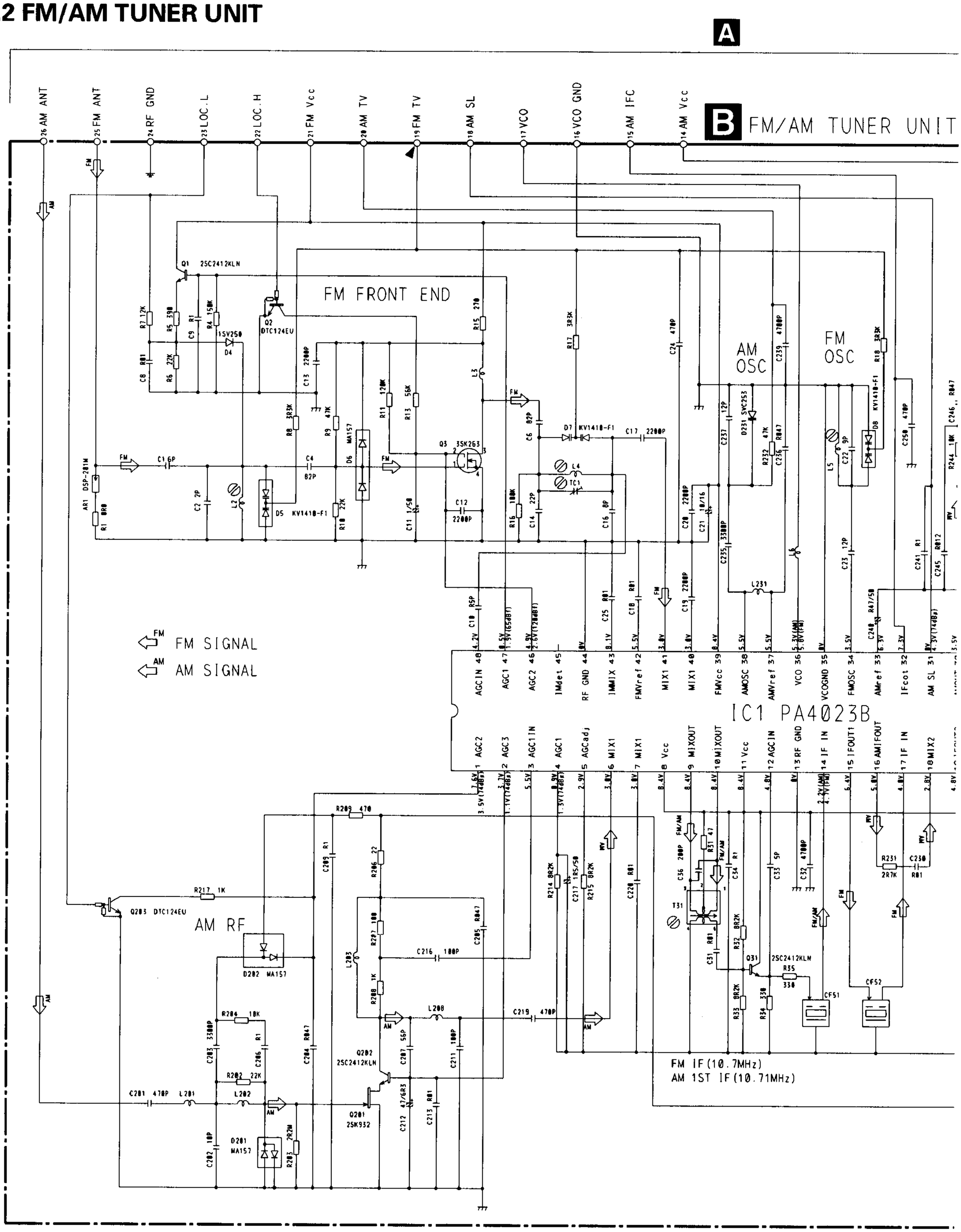

IP-BUS
IP BUS IN
B REMOTE
CN602
CN601
IC901 PD6196A
LCD DRIVER
KEY BOARD UNIT
5V REGULATOR
AUDIO REGULATOR 8.5V
MUTE
CONTROLLER
IC801 TPD1018F
LCD901
RIGHT
PTY
DISP
CH4
VOL -
SOURCE
CH1
PGM
DOWN
CH5
LEFT
CH2
TA/AF
CH6
AUDIO
VOL +
CH3
BAND
UP
FUNC
KST0
KST1
KST2
KST3
KST4
KDT0
KDT1
KDT2
KDT3
KDT4
CD:+2.2dBs (1kHz, 0dB)
SYS+B
ILS01-905 KEH-P3600R CEL1481
14V/40mA KEH-P3630R CEL1479
KEH-P3600R:CAM1383
KEH-P3630R CAM1391

Fig. 7

A-b

## 3.2 FM/AM TUNER UNIT



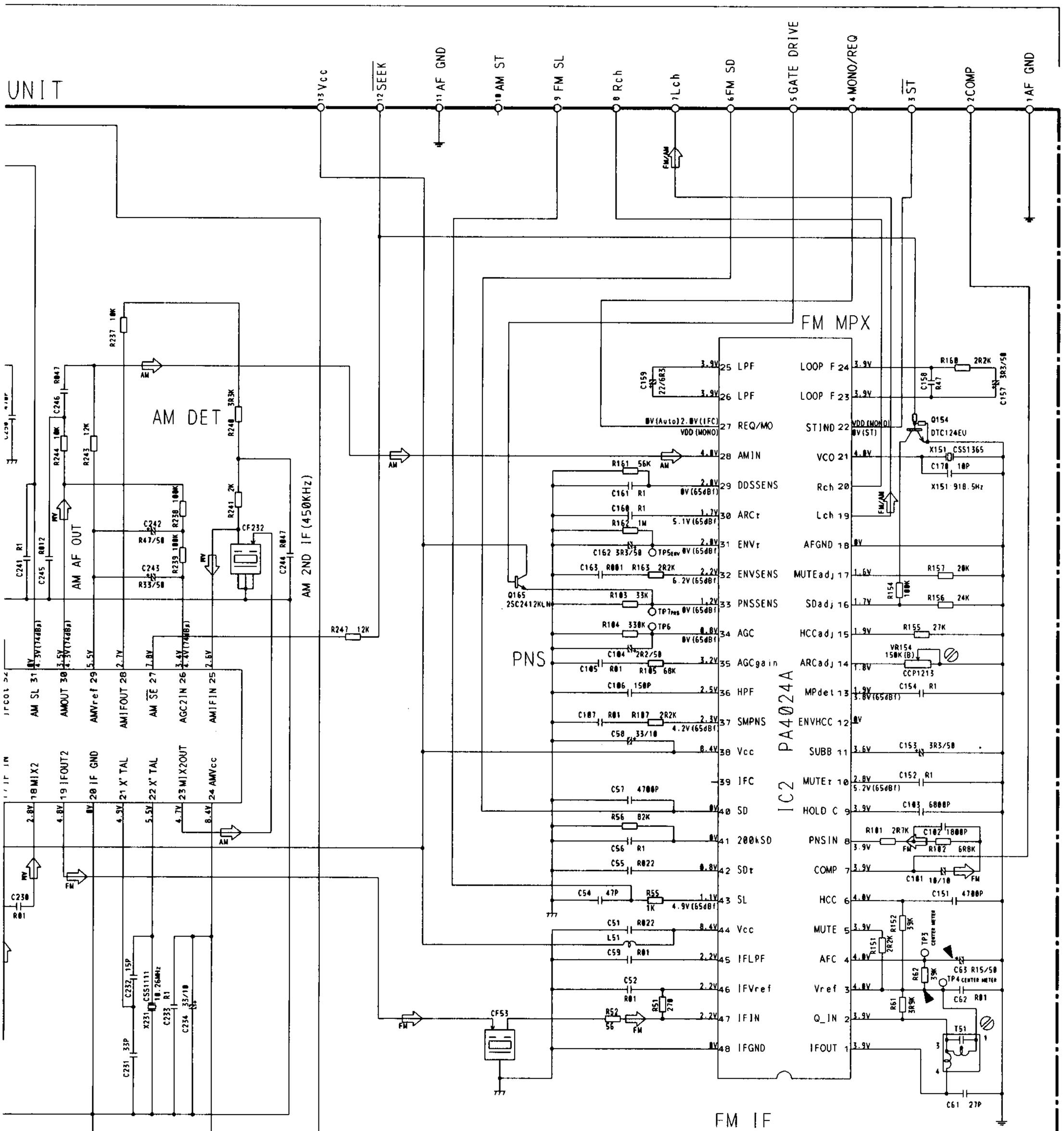

UNIT
13 Vcc
12 SEEK
11 AF GND
10 AM ST
9 FM SL
8 Rch
7 Lch
6 FM SD
5 GATE DRIVE
4 MONO/REQ
3 ST
2 COMP
1 AF GND
FM/AM
AM DET
AM AF OUT
AM 2ND IF (450KHz)
FM MPX
PNS
IC2 PA4024A
FM IF
25 LPF
26 LPF
27 REQ/MO
28 AMIN
29 DDSSENS
30 ARCr
31 ENVr
32 ENVSENS
33 PNSSENS
34 AGC
35 AGCgain
36 HPF
37 SMPNS
38 Vcc
39 IFC
40 SD
41 200kSD
42 SDr
43 SL
44 Vcc
45 IFLPF
46 IFVref
47 IFIN
48 IFGND
LOOP F 24
LOOP F 23
STIND 22
VCO 21
Rch 20
Lch 19
AFGND 18
MUTEadj 17
SDadj 16
HCCadj 15
ARCadj 14
MPdet 13
ENVHCC 12
SUBB 11
MUTEr 10
HOLD C 9
PNSIN 8
COMP 7
HCC 6
MUTE 5
AFC 4
Vref 3
Q_IN 2
IFOUT 1
Q154 DTC124EU
X151 CSS1365
X151 918.5Hz
AM SL 31
AMOUT 30
AMVref 29
AMIFOUT 28
AM SE 27
AGC2IN 26
AMIFIN 25
18 MIX2
19 IFOUT2
20 IF GND
21 X'TAL
22 X'TAL
23 MIX2OUT
24 AMVcc
CF232
CF53
X231 CSS1111 10.26MHz
TP3 CENTER METER
TP4 CENTER METER
TP6
T51
VR154 150K (B) CCP1213

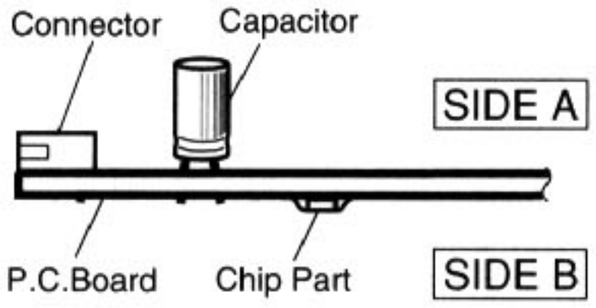
Fig. 8

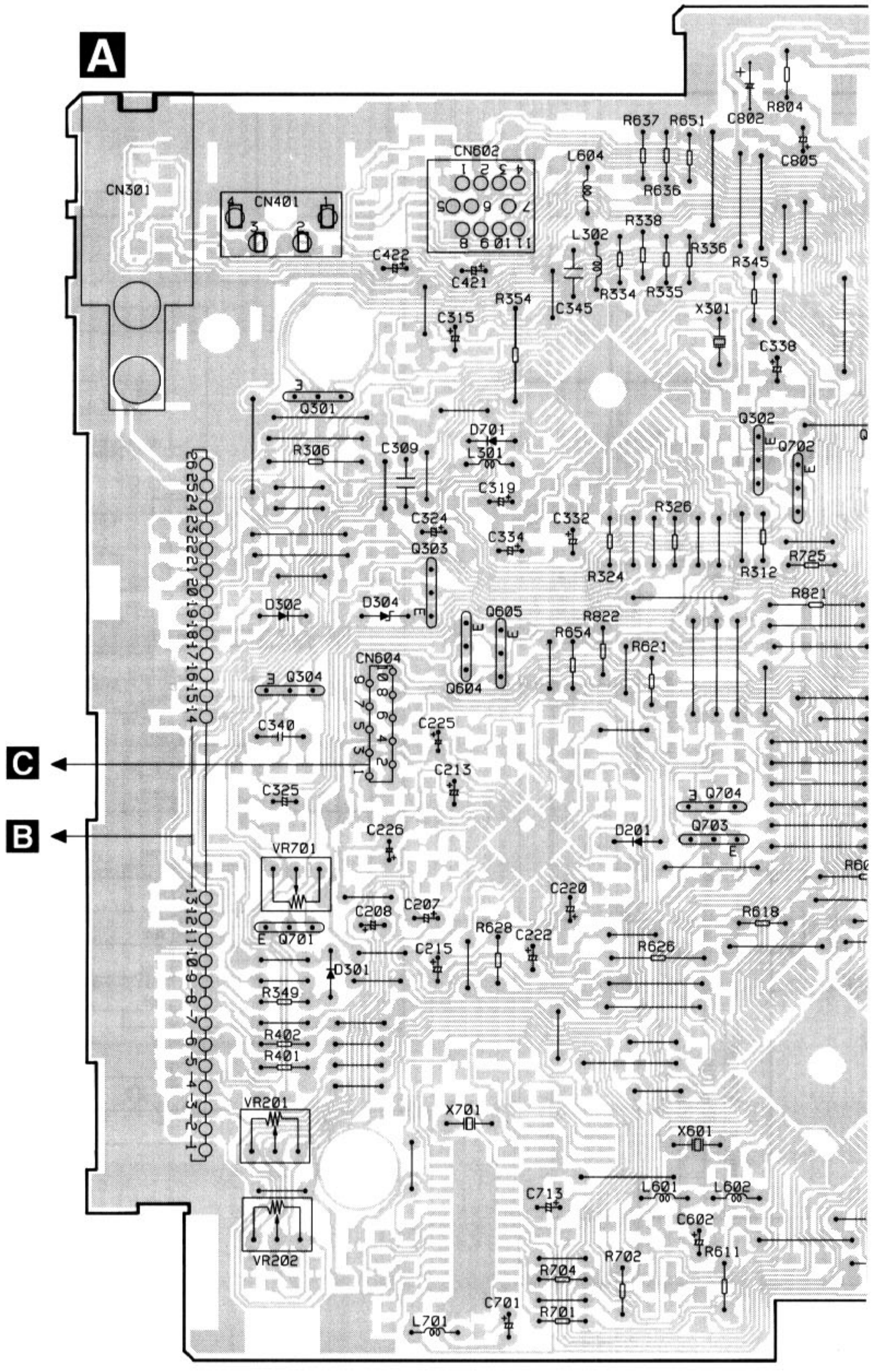
# 4. PCB CONNECTION DIAGRAM

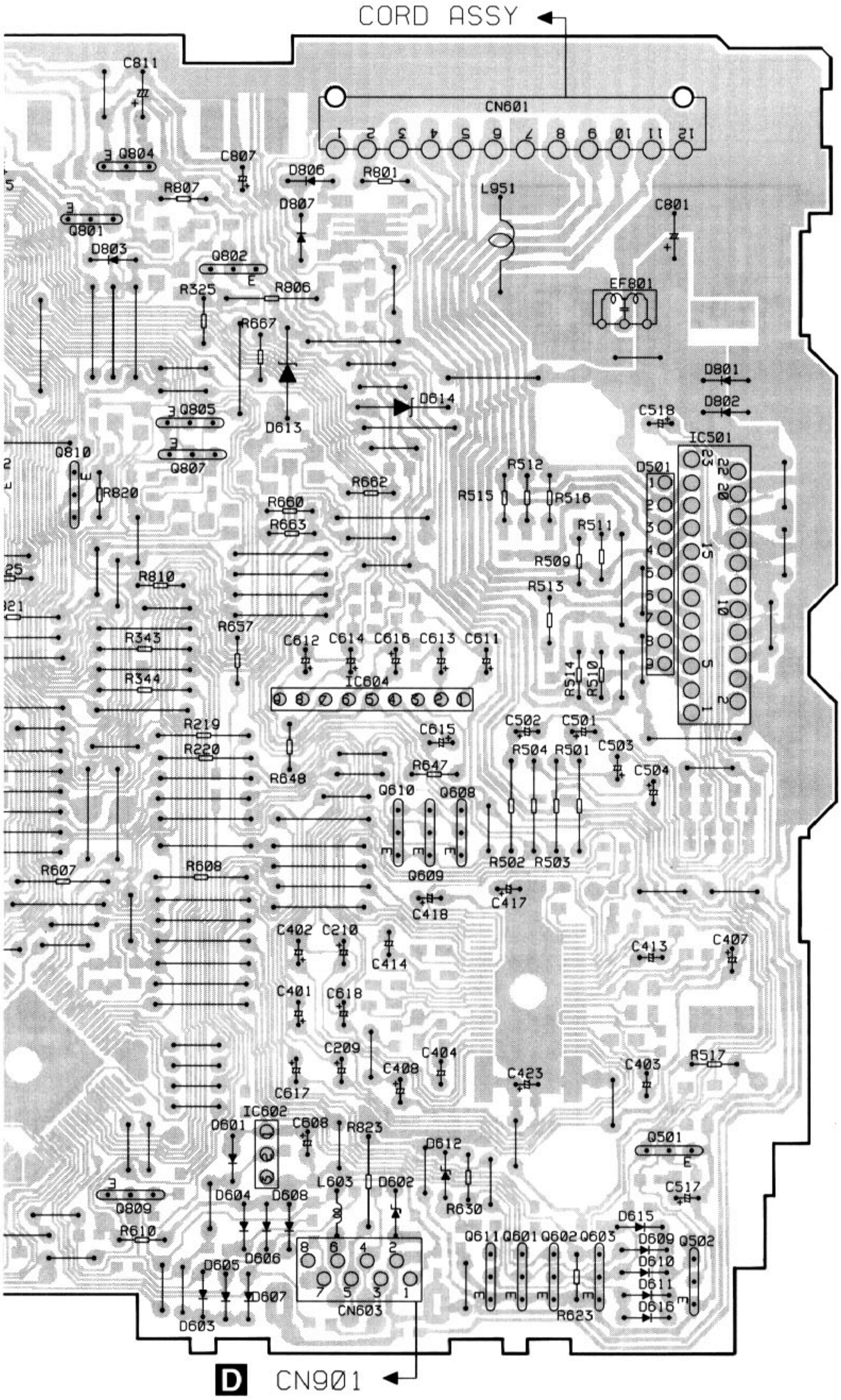
## 4.1 TUNER AMP UNIT

### NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams



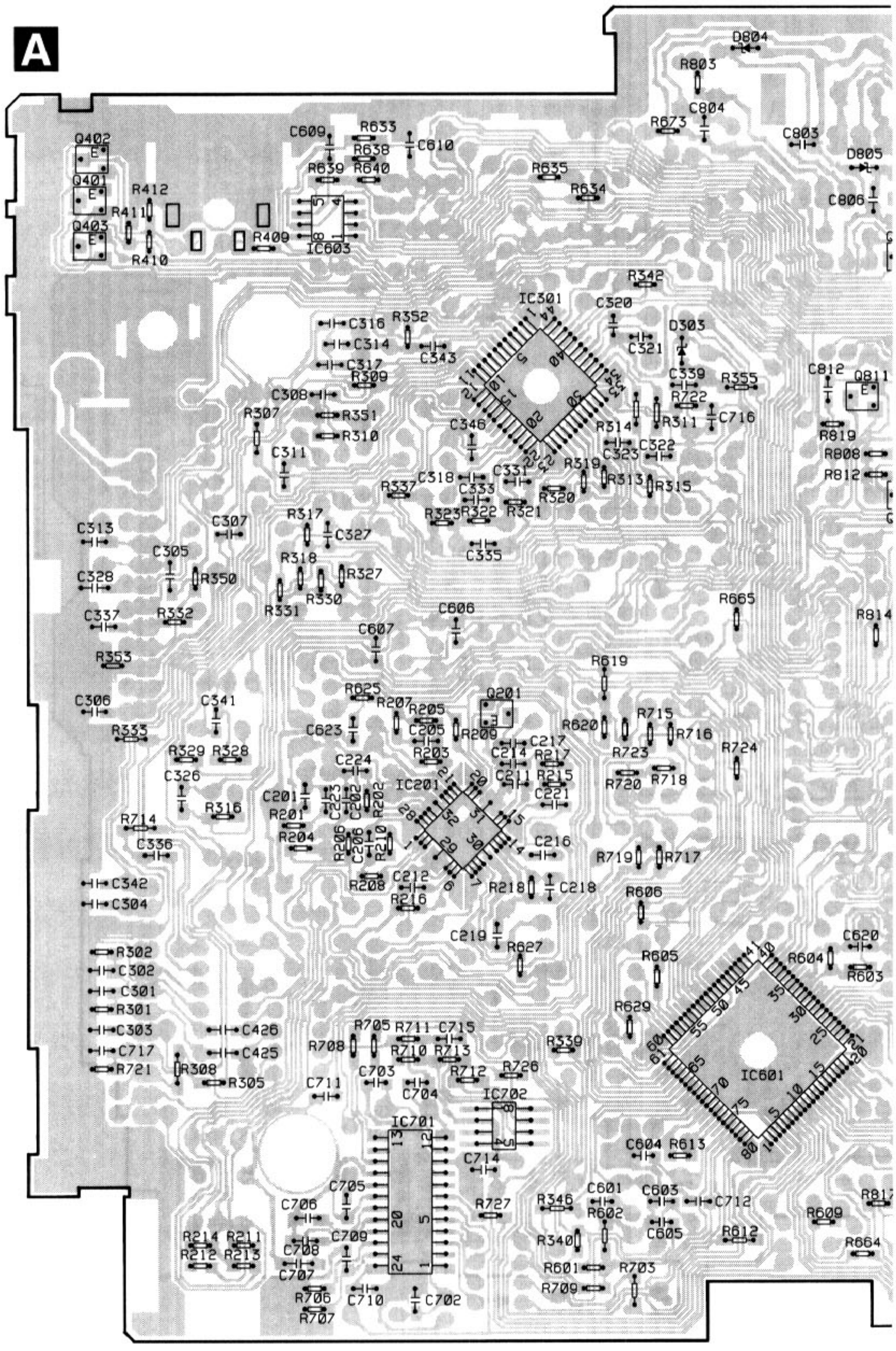


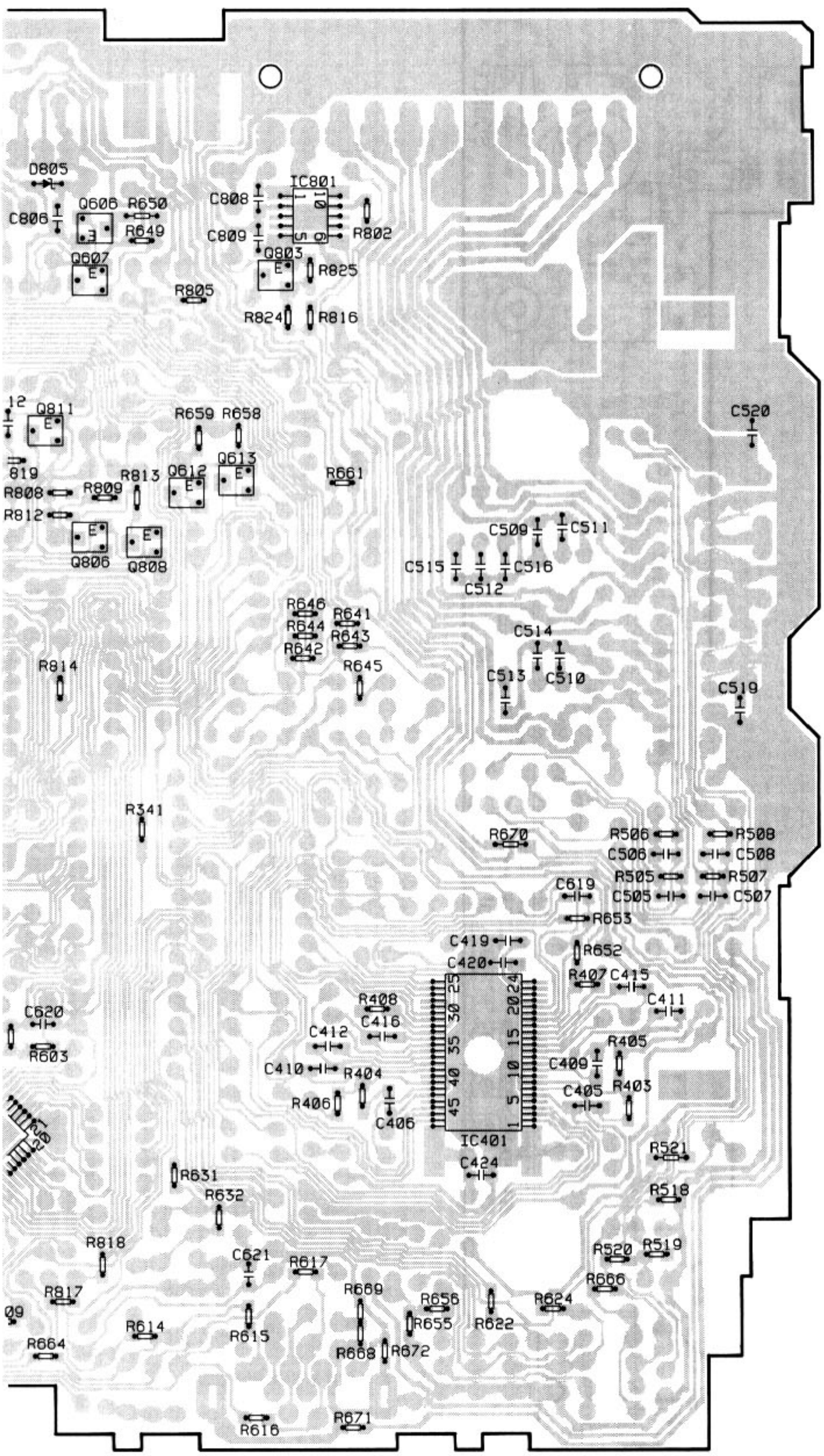

**SIDE A**

| | |
|---|---|
| ADJ | IC. Q |
| | Q804 |
| | Q801 |
| | Q802 |
| | Q301 Q805 |
| | Q302 Q810 |
| | Q702 Q807 |
| | Q303 |
| | Q605 |
| | Q304 IC604 |
| | Q604 |
| | Q610 Q608 |
| | Q704 |
| | Q703 |
| VR701 | |
| | Q609 |
| | Q701 |
| VR201 | IC602 |
| | Q501 |
| | Q809 |
| VR202 | Q611 Q603 |
| | Q602 Q601 |
| | Q502 |

Fig. 9

A


D804
R803
C804
R673
C803
D805
C806
R635
R634
R633
C609
C610
R638
R639
R640
Q402
Q401
Q403
R412
R411
R410
R409
IC603
R342
IC301
C320
D303
C321
C316
R352
C314
C343
C317
R309
C339
R355
C812
Q811
R722
C308
R351
R307
R310
C346
R314
R311
C716
R819
C311
C322
C323
R808
C331
R519
R812
C318
R313
R315
C333
R337
R320
R323
R322
R321
C313
C307
R317
C327
C335
C305
R318
R327
C328
R350
R330
R331
R332
C337
C606
R665
R814
C607
R353
R619
C306
C341
R625
R207
R205
Q201
R715
R620
R333
C623
C205
R209
C217
R716
R723
R724
R329
R328
C214
R217
C224
C211
R215
R720
R718
C326
IC201
C221
C201
R316
R201
R714
R204
C216
C336
R719
R717
C342
R208
C212
R218
C218
C304
R216
R606
C219
R627
C620
R302
R605
R604
C302
R603
C301
R629
R301
C303
C426
R705
R711
C715
R339
C717
C425
R708
R710
R713
R726
R721
R308
R305
C703
R712
C711
C704
IC702
IC601
IC701
C604
R613
C714
C705
C601
C603
C712
R727
R346
R602
R609
C706
C709
C605
R612
R214
R211
R340
R664
R212
R213
C708
R601
R703
C707
R709
R706
C710
C702
R707




SIDE B

IC, Q

Q402
IC801
Q606
Q401
Q403
Q607 Q803
IC603

IC301 Q811

Q613 IC501
Q612

Q806
Q808

Q201

IC201

IC601
IC401

IC702

IC701

Fig. 10

## 4.2 KEY BOARD UNIT

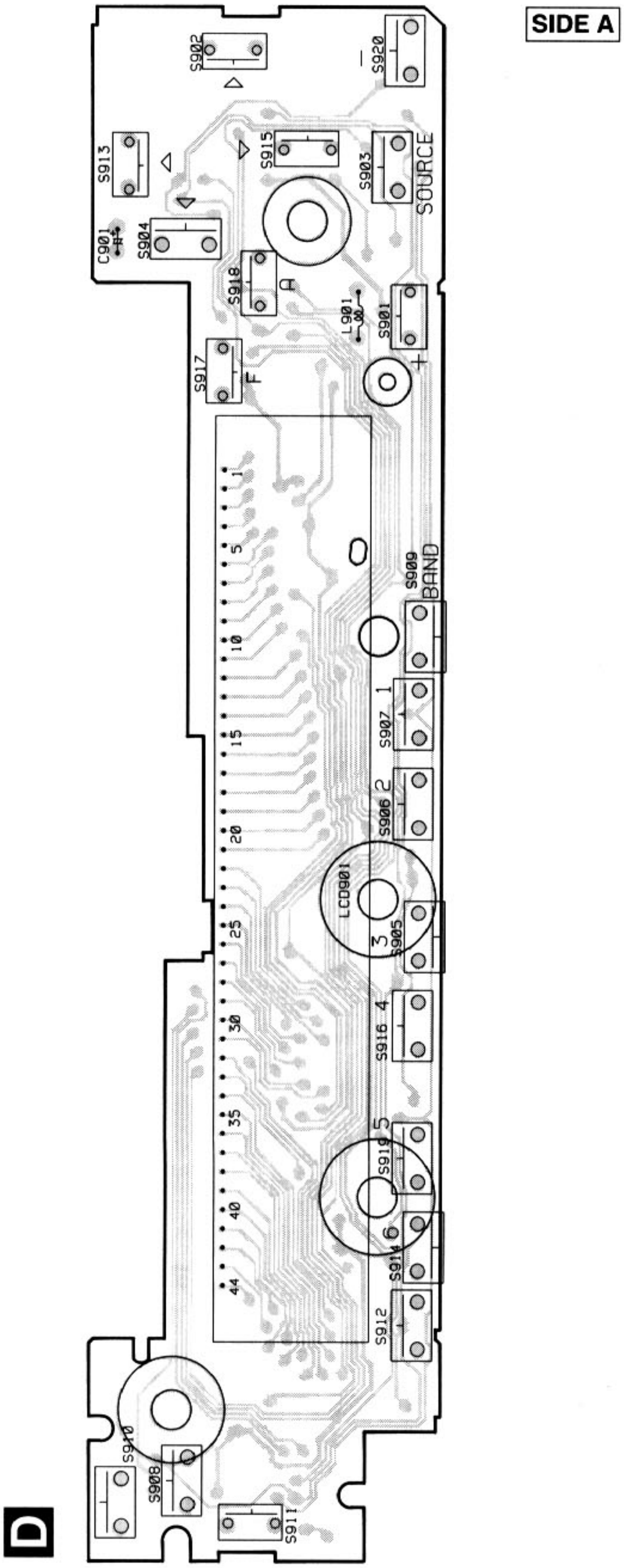



Fig. 11

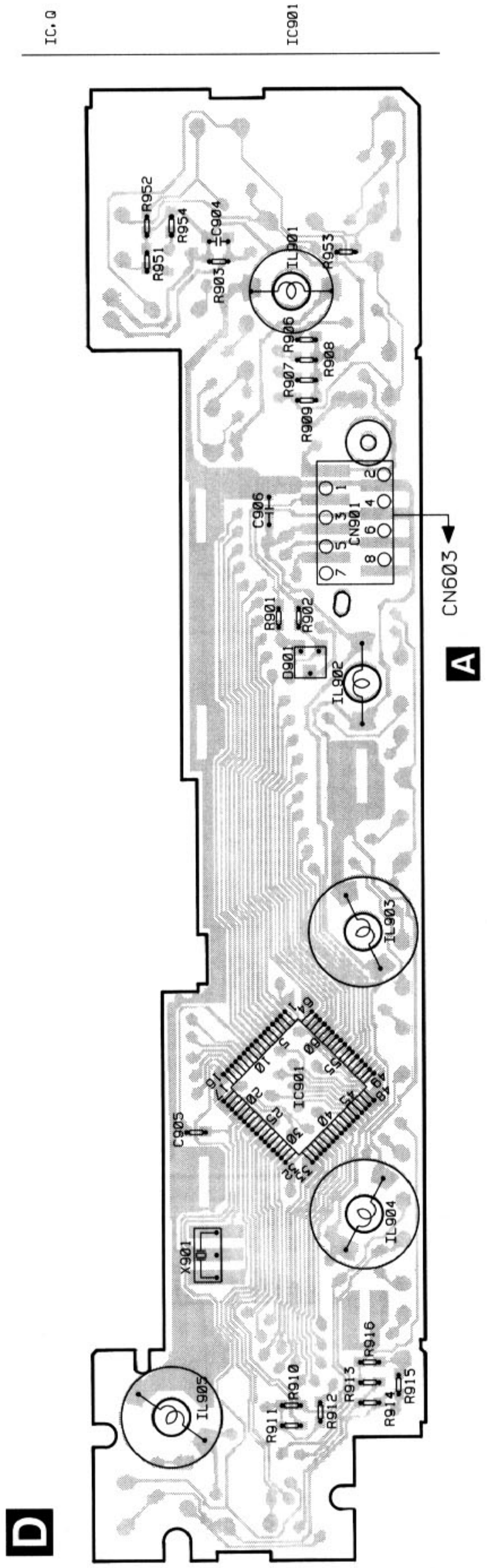

IC.Q
IC901
SIDE B
R952
R954
R951
C904
R903
IL901
R953
R906
R907
R908
R909
C906
CN901
CN603
R901
R902
D901
IL902
A
IL903
IC901
C905
IL904
X901
IL905
R911
R910
R912
R913
R916
R914
R915
D

Fig. 12

## 4.3 FM/AM TUNER UNIT

SIDE A

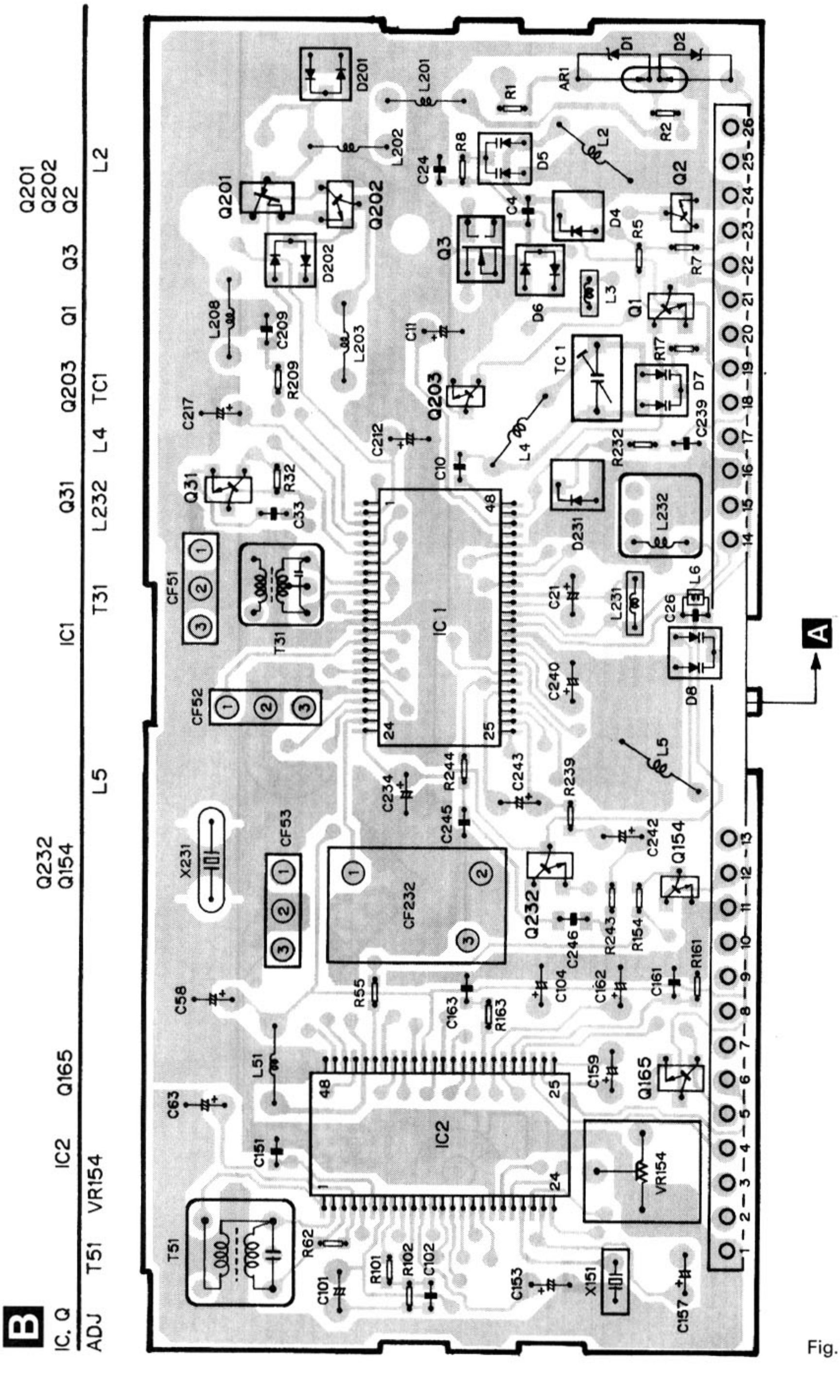



Fig. 13

SIDE B

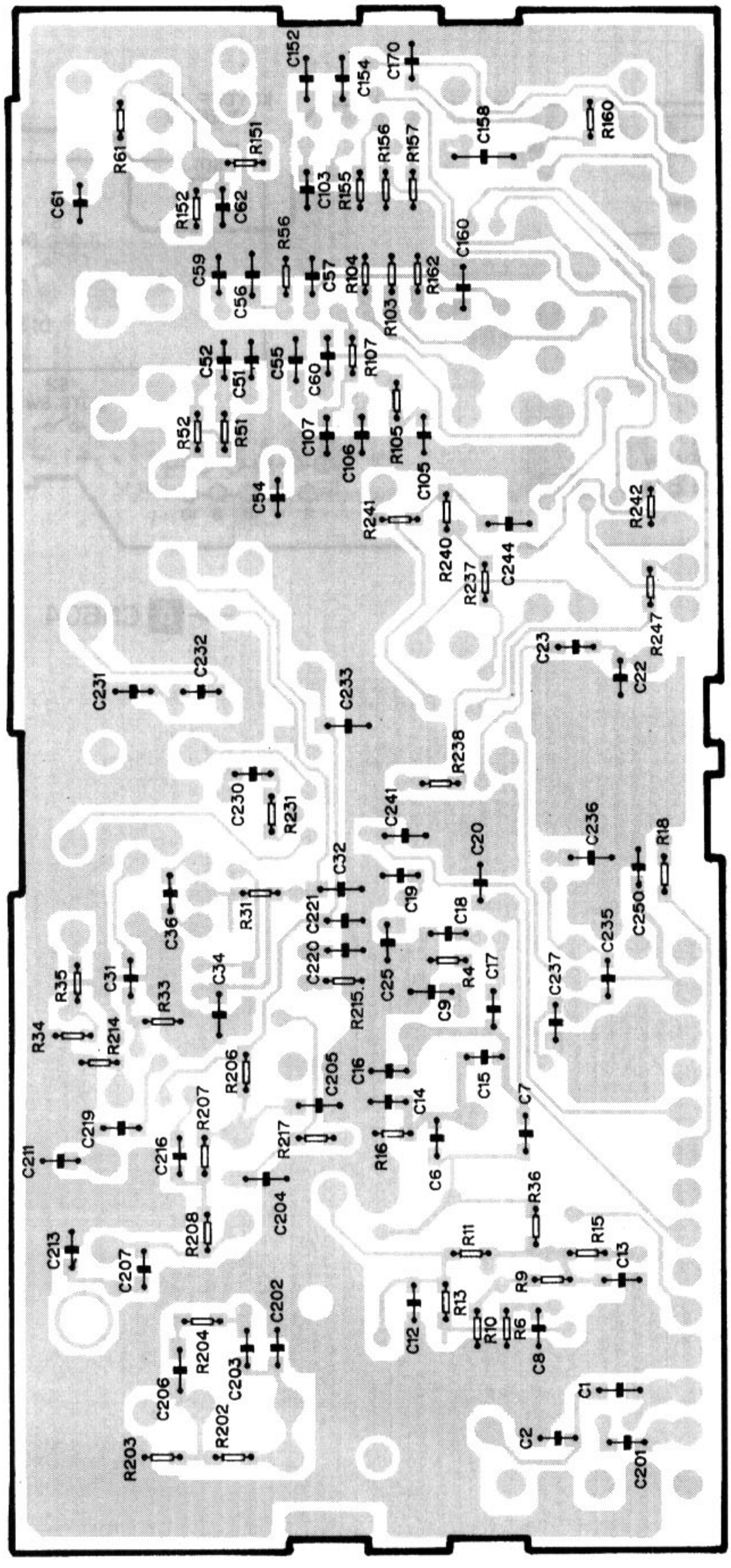

C61
R61
R152
C62
R151
C59
C56
R56
C57
R104
R103
C152
C154
C170
R156
R157
C158
R160
C160
R162
C103
R155
C52
C51
C55
C60
R107
R52
R51
C54
C107
C106
R105
C105
R241
R240
R237
C244
R242
C23
C22
R247
C231
C232
C233
C230
R231
C241
R238
C32
C221
C220
C25
C19
C18
C20
C236
C235
C250
R18
C237
R35
R34
C31
R214
R33
C36
C34
R215
R31
R4
C9
C17
C15
C7
C16
C14
C6
R16
R36
C211
C219
C216
R207
R206
C205
R217
C204
R208
C207
C213
C206
R204
C203
C202
R202
R203
C12
R13
R11
R10
R6
R9
R15
C13
C8
C1
C2
C201

Fig. 14

## 4.4 CASSETTE PCB

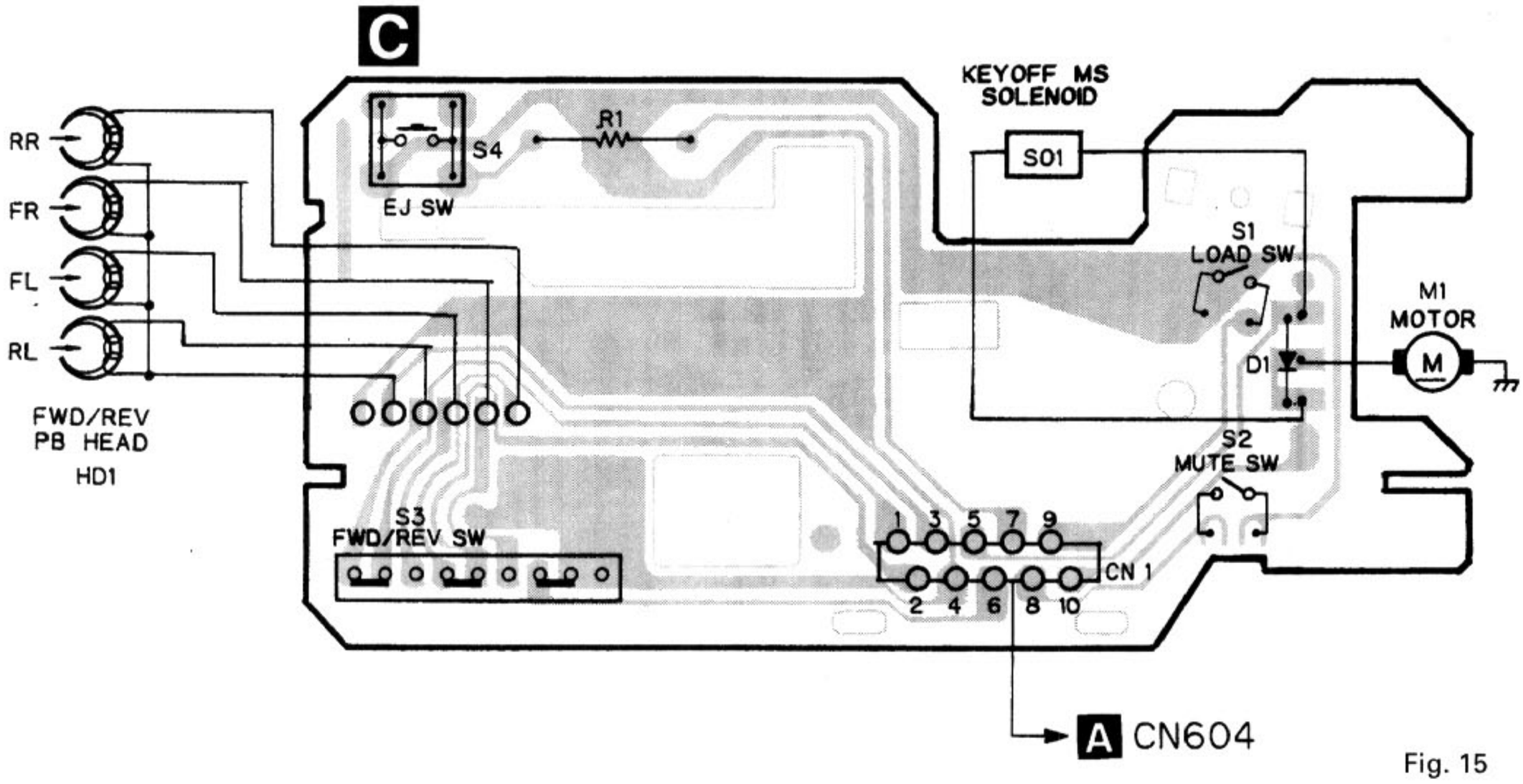



Fig. 15

# 5. ELECTRICAL PARTS LIST

**NOTE:**

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

  Chip Resistor

  RS1/○S○○○J,RS1/○○S○○○J

  Chip Capacitor (except for CQS.....)

  CKS....., CCS....., CSZS.....

**B** Unit Number : CWE1416
Unit Name : FM/AM Tuner Unit

MISCELLANEOUS

| =====Circuit Symbol & No.=== | Part Name | Part No. |
|---|---|---|
| IC 1 | IC | PA4023B |
| IC 2 | IC | PA4024A |
| Q 1 | Transistor | 2SC2412KLN |
| Q 2 | Transistor | DTC124EU |
| Q 3 | FET | 3SK263 |
| Q 31 | Transistor | 2SC2412KLN |
| Q 154 | Transistor | DTC124EU |
| Q 165 | Transistor | 2SC2412KLN |
| Q 201 | FET | 2SK932 |
| Q 202 | Transistor | 2SC2412KLN |
| Q 203 | Transistor | DTC124EU |
| D 4 | Diode | 1SV250 |
| D 5 | Diode | KV1410-F1 |
| D 6 | Diode | MA157 |
| D 7 | Diode | KV1410-F1 |
| D 8 | Diode | KV1410-F1 |
| D 201 | Diode | MA157 |
| D 202 | Diode | MA157 |
| D 231 | Diode | SVC253 |
| L 2 | Coil | CTC1108 |
| L 3 | Inductor | LCTB2R2K2125 |
| L 4 | Coil | CTC1108 |
| L 5 | Coil | CTC1107 |
| L 6 | Inductor | LCTBR15K1608 |
| L 51 | Ferri-Inductor | LAU150K |
| L 201 | Ferri-Inductor | LAU4R7K |
| L 202 | Ferri-Inductor | LAU330K |
| L 203 | Inductor | CTF1287 |
| L 208 | Inductor | LAU121K |
| L 231 | Inductor | LCTA3R3J3225 |
| T 31 | Coil | CTE1116 |
| T 51 | Coil | CTC1136 |
| TC 1 | Capacitor | CCL1038 |
| CF 51 | Ceramic Filter | CTF1292 |
| CF 52 | Ceramic Filter | CTF1292 |
| CF 53 | Ceramic Filter | CTF1292 |
| CF 232 | Ceramic Filter | CTF1348 |
| X 151 | Resonator 920.5kHz | CSS1365 |
| X 231 | Crystal Resonator 10.26MHz | CSS1111 |
| VR 154 | Semi-fixed 150kΩ(B) | CCP1213 |
| AR 1 | | DSP-201M |

RESISTORS

| | | |
|---|---|---|
| R 1 | | RS1/16S0R0J |
| R 4 | | RS1/16S154J |
| R 5 | | RS1/16S391J |
| R 6 | | RS1/16S223J |
| R 7 | | RS1/16S123J |
| R 8 | | RS1/16S332J |
| R 9 | | RS1/16S473J |
| R 10 | | RS1/16S223J |
| R 11 | | RS1/16S124J |
| R 13 | | RS1/16S563J |
| R 15 | | RS1/16S271J |
| R 16 | | RS1/16S104J |
| R 17 | | RS1/16S332J |
| R 18 | | RS1/16S332J |
| R 31 | | RS1/16S470J |
| R 32 | | RS1/16S822J |
| R 33 | | RS1/16S822J |
| R 34 | | RS1/16S331J |
| R 35 | | RS1/16S331J |
| R 51 | | RS1/16S271J |
| R 52 | | RS1/16S560J |
| R 55 | | RS1/16S102J |
| R 56 | | RS1/16S823J |
| R 61 | | RS1/16S392J |
| R 62 | | RS1/16S393J |
| R 101 | | RS1/16S272J |
| R 102 | | RS1/16S682J |
| R 103 | | RS1/16S333J |
| R 104 | | RS1/16S334J |
| R 105 | | RS1/16S683J |
| R 107 | | RS1/16S222J |
| R 151 | | RS1/16S222J |
| R 152 | | RS1/16S393J |
| R 154 | | RS1/16S104J |
| R 155 | | RS1/16S273J |
| R 156 | | RS1/16S243J |
| R 157 | | RS1/16S203J |
| R 160 | | RS1/16S222J |
| R 161 | | RS1/16S563J |
| R 162 | | RS1/16S105J |
| R 163 | | RS1/16S222J |
| R 202 | | RS1/16S223J |
| R 203 | | RS1/16S225J |
| R 204 | | RS1/16S103J |
| R 206 | | RS1/16S220J |
| R 207 | | RS1/16S101J |
| R 208 | | RS1/16S102J |
| R 209 | | RS1/16S471J |
| R 214 | | RS1/16S822J |
| R 215 | | RS1/16S102J |
| R 217 | | RS1/16S272J |
| R 231 | | RS1/16S473J |
| R 232 | | RS1/16S103J |
| R 237 | | RS1/16S104J |
| R 238 | | RS1/16S104J |
| R 239 | | RS1/16S332J |
| R 240 | | RS1/16S202J |
| R 241 | | RS1/16S123J |
| R 243 | | RS1/16S103J |
| R 244 | | |

| =====Circuit Symbol & No.===Part Name | | | Part No. |
|---|---|---|---|
| R | 247 | | RS1/16S123J |
| CAPACITORS | | | |
| C | 1 | | CCSQCH6R0D50 |
| C | 2 | | CCSRCK2R0C50 |
| C | 4 | | CCSRCH820J50 |
| C | 6 | | CCSRCH820J50 |
| C | 8 | | CKSRYB103K25 |
| C | 9 | | CKSQYB104K16 |
| C | 10 | | CCSRCKR50C50 |
| C | 11 | | CEJA1R0M50 |
| C | 12 | | CKSRYB222K50 |
| C | 13 | | CKSRYB222K50 |
| C | 14 | | CCSRCH220J50 |
| C | 16 | | CCSRCH8R0D50 |
| C | 17 | | CKSRYB222K50 |
| C | 18 | | CKSRYB103K25 |
| C | 19 | | CKSRYB222K50 |
| C | 20 | | CKSRYB222K50 |
| C | 21 | | CEJA100M16 |
| C | 22 | | CCSRTH9R0D50 |
| C | 23 | | CCSRTH120J50 |
| C | 24 | | CCSRCH471J50 |
| C | 25 | | CKSRYB103K25 |
| C | 31 | | CKSRYB103K25 |
| C | 32 | | CKSQYB472K50 |
| C | 33 | | CCSRCH5R0C50 |
| C | 34 | | CKSQYB104K16 |
| C | 36 | | CCSRRH201J50 |
| C | 51 | | CKSRYB223K25 |
| C | 52 | | CKSRYB103K25 |
| C | 54 | | CCSRCH470J50 |
| C | 55 | | CKSQYB223K25 |
| C | 56 | | CKSQYB104K16 |
| C | 57 | | CKSRYB472K50 |
| C | 58 | | CEJA330M10 |
| C | 59 | | CKSRYB103K25 |
| C | 61 | | CCSRCH270J50 |
| C | 62 | | CKSRYB103K25 |
| C | 63 | | CEJAR15M50 |
| C | 101 | | CEJANP100M10 |
| C | 102 | | CKSRYB182K50 |
| C | 103 | | CKSRYB682K25 |
| C | 104 | | CEJA2R2M50 |
| C | 105 | | CKSRYB103K25 |
| C | 106 | | CCSRCH151J50 |
| C | 107 | | CKSRYB103K25 |
| C | 151 | | CKSRYB472K50 |
| C | 152 | | CKSQYB104K16 |
| C | 153 | | CEJA3R3M50 |
| C | 154 | | CKSQYB104K16 |
| C | 157 | | CEJA3R3M50 |
| C | 158 | | CKSYB474K16 |
| C | 159 | | CEJA220M6R3 |
| C | 160 | | CKSQYB104K16 |
| C | 161 | | CKSQYB104K16 |
| C | 162 | | CEJA3R3M50 |
| C | 163 | | CKSRYB102K50 |
| C | 170 | | CCSRCH100D50 |
| C | 201 | | CCSRCH471J50 |
| C | 202 | | CCSRCH100D50 |
| C | 203 | | CKSRYB332K50 |
| C | 204 | | CKSQYB473K16 |
| C | 205 | | CKSQYB473K16 |
| C | 206 | | CKSQYB104K16 |
| C | 207 | | CCSRCH560J50 |
| C | 209 | | CKSQYB104K16 |
| C | 211 | | CCSRCH101J50 |

| =====Circuit Symbol & No.===Part Name | | | Part No. |
|---|---|---|---|
| C | 212 | | CEJA470M6R3 |
| C | 213 | | CKSRYB103K25 |
| C | 216 | | CCSRCH101J50 |
| C | 217 | | CEJA1R5M50 |
| C | 219 | | CCSRCH471J50 |
| C | 220 | | CKSRYB103K25 |
| C | 230 | | CKSRYB103K25 |
| C | 231 | | CCSRCH330J50 |
| C | 232 | | CCSRCH150J50 |
| C | 233 | | CKSQYB104K16 |
| C | 234 | | CEJA330M10 |
| C | 235 | | CKSRYB332K50 |
| C | 236 | | CKSQYB473K16 |
| C | 237 | | CCSRCH120J50 |
| C | 239 | | CKSRYB472K50 |
| C | 240 | | CEJAR47M50 |
| C | 241 | | CKSQYB104K16 |
| C | 242 | | CEJAR47M50 |
| C | 243 | | CEJAR33M50 |
| C | 244 | | CKSQYB473K16 |
| C | 245 | | CKSRYB123K25 |
| C | 246 | | CKSQYB473K16 |
| C | 250 | | CCSRCH471J50 |

**A** Unit Number : CWM5171(KEH-P3600R)
Unit Number : CWM5172(KEH-P3630R)
Unit Name : Tuner Amp Unit

MISCELLANEOUS

| | | | | |
|---|---|---|---|---|
| IC | 201 | IC | | HA12197F |
| IC | 301 | IC | | PM2005B |
| IC | 401 | IC | | SN761027DL |
| IC | 501 | IC | | HA13155 |
| IC | 601 | IC | | PD4743A |
| IC | 602 | IC | | S-80734AN |
| IC | 603 | IC | | CA0008AM |
| IC | 604 | IC | | TA2050S |
| IC | 701 | IC | | PMW001B |
| IC | 702 | IC | | NJM2903M |
| IC | 801 | IC | | TPD1018F |
| Q | 301 | Transistor | | 2SC1740S |
| Q | 302 | Transistor | | DTC114ES |
| Q | 401 | Transistor | | DTC343TK |
| Q | 402 | Transistor | | DTC343TK |
| Q | 403 | Transistor | | DTA124EK |
| Q | 501 | Transistor | | DTC124ES |
| Q | 502 | Transistor | | DTC124ES |
| Q | 601 | Transistor | | DTC143TS |
| Q | 602 | Transistor | | DTC124ES |
| Q | 603 | Transistor | | 2SC1740S |
| Q | 604 | Transistor | | DTC124ES |
| Q | 605 | Transistor | | 2SC1740S |
| Q | 606 | Transistor | | DTC114EK |
| Q | 607 | Transistor | | 2SA1037K |
| Q | 608 | Transistor | | DTA124ES |
| Q | 609 | Transistor | | DTC143TS |
| Q | 610 | Transistor | | DTC143TS |
| Q | 611 | Transistor | | 2SC1740S |
| Q | 612 | Transistor | | 2SC2412K |
| Q | 613 | Transistor | | 2SC2412K |
| Q | 701 | Transistor | | DTC143TS |
| Q | 702 | Transistor | | 2SC1740S |
| Q | 703 | Transistor | | 2SD1468S |
| Q | 704 | Transistor | | 2SD1468S |
| Q | 801 | Transistor | | 2SD2037 |
| Q | 802 | Transistor | | 2SB1243 |
| Q | 803 | Transistor | | 2SC2412K |
| Q | 804 | Transistor | | 2SD2396 |
| Q | 805 | Transistor | | 2SA1048 |

| =====Circuit Symbol & No.===Part Name | | | Part No. |
|---|---|---|---|
| Q | 806 | Transistor | 2SC2412K |
| Q | 807 | Transistor | 2SA1674 |
| Q | 808 | Transistor | 2SC2412K |
| Q | 809 | Transistor | 2SA933S |
| Q | 810 | Transistor | 2SB1242 |
| Q | 811 | Transistor | DTC143TK |
| D | 201 | Diode | 1SS270 |
| D | 302 | Diode | 1SS270 |
| D | 501 | Diode | CWW1352 |
| D | 601 | Diode | 1SS270 |
| D | 602 | Diode | HZS7L(A1) |
| D | 603 | Diode | 1SS270 |
| D | 604 | Diode | 1SS270 |
| D | 605 | Diode | 1SS270 |
| D | 606 | Diode | 1SS270 |
| D | 607 | Diode | 1SS270 |
| D | 608 | Diode | 1SS270 |
| D | 609 | Diode | 1SS270 |
| D | 610 | Diode | 1SS270 |
| D | 611 | Diode | 1SS270 |
| D | 612 | Diode | HZS9L(A2) |
| D | 613 | Diode | HZS7L(C3) |
| D | 614 | Diode | HZS7L(A1) |
| D | 615 | Diode | 1SS270 |
| D | 616 | Diode | 1SS270 |
| D | 701 | Diode | 1SS270 |
| D | 801 | Diode | 1SR139-400 |
| D | 802 | Diode | 1SR139-400 |
| D | 803 | Diode | 1SR139-400 |
| D | 804 | Diode | MA8056(H) |
| D | 805 | Diode | MA8091(M) |
| D | 806 | Diode | 1SR139-400 |
| D | 807 | Diode | 1SR139-400 |
| L | 301 | Ferri-Inductor | LAU101K |
| L | 302 | Ferri-Inductor | LAU101K |
| L | 601 | Ferri-Inductor | LAU101K |
| L | 602 | Ferri-Inductor | LAU101K |
| L | 603 | Ferri-Inductor | LAU101K |
| L | 604 | Ferri-Inductor | LAU2R2K |
| L | 701 | Ferri-Inductor | LAU101K |
| L | 951 | Choke Coil 600H | CTH1168 |
| X | 301 | Crystal Resonator 7.200MHz | CSS1379 |
| X | 601 | Ceramic Resonator 6.29MHz | CSS1310 |
| X | 701 | Crystal Resonator 4.332MHz | CSS1056 |
| VR | 701 | Semi-fixed 22kΩ(B) | CCP1321 |
| | | FM/AM Tuner Unit | CWE1416 |

RESISTORS

| | | |
|---|---|---|
| R | 201 | RS1/10S473J |
| R | 202 | RS1/10S473J |
| R | 203 | RS1/10S181J |
| R | 204 | RS1/10S181J |
| R | 205 | RS1/10S274J |
| R | 206 | RS1/10S274J |
| R | 207 | RS1/10S133J |
| R | 208 | RS1/10S133J |
| R | 209 | RS1/10S183J |
| R | 210 | RS1/10S183J |
| R | 211 | RS1/10S472J |
| R | 212 | RS1/10S472J |
| R | 213 | RS1/10S512J |
| R | 214 | RS1/10S512J |
| R | 215 | RS1/10S683J |
| R | 218 | RS1/10S914J |
| R | 219 | RD1/4PU273J |
| R | 220 | RD1/4PU273J |
| R | 301 | RS1/10S272J |
| R | 302 | RS1/10S272J |

| =====Circuit Symbol & No.===Part Name | | Part No. |
|---|---|---|
| R | 305 | RS1/10S0R0J |
| R | 306 | RD1/4PU222J |
| R | 307 | RS1/8S222J |
| R | 308 | RS1/8S222J |
| R | 309 | RS1/10S102J |
| R | 310 | RS1/10S0R0J |
| R | 311 | RS1/8S272J |
| R | 312 | RD1/4PU222J |
| R | 314 | RS1/8S392J |
| R | 315 | RS1/10S392J |
| R | 316 | RS1/10S152J |
| R | 317 | RS1/10S103J |
| R | 318 | RS1/10S0R0J |
| R | 319 | RS1/10S472J |
| R | 320 | RS1/10S682J |
| R | 321 | RS1/10S472J |
| R | 322 | RS1/10S681J |
| R | 323 | RS1/10S682J |
| R | 324 | RD1/4PU102J |
| R | 326 | RD1/4PU0R0J |
| R | 328 | RS1/10S561J |
| R | 332 | RS1/10S103J |
| R | 333 | RS1/8S393J |
| R | 334 | RD1/4PU562J |
| R | 335 | RD1/4PU472J |
| R | 336 | RD1/4PU473J |
| R | 337 | RS1/10S473J |
| R | 338 | RD1/4PU104J |
| R | 339 | RS1/10S473J |
| R | 340 | RS1/10S473J |
| R | 341 | RS1/10S681J |
| R | 342 | RS1/10S681J |
| R | 343 | RD1/4PU681J |
| R | 344 | RD1/4PU681J |
| R | 345 | RD1/4PU222J |
| R | 346 | RS1/8S472J |
| R | 349 | RD1/4PU102J |
| R | 350 | RS1/10S510J |
| R | 352 | RS1/10S0R0J |
| R | 353 | RS1/10S0R0J |
| R | 354 | RD1/4PU102J |
| R | 355 | RS1/8S0R0J |
| R | 403 | RS1/10S272J |
| R | 404 | RS1/10S272J |
| R | 405 | RS1/10S151J |
| R | 406 | RS1/10S151J |
| R | 407 | RS1/10S221J |
| R | 408 | RS1/10S221J |
| R | 409 | RS1/10S821J |
| R | 410 | RS1/10S821J |
| R | 411 | RS1/10S223J |
| R | 412 | RS1/10S223J |
| R | 501 | RD1/4PU202J |
| R | 502 | RD1/4PU202J |
| R | 503 | RD1/4PU202J |
| R | 504 | RD1/4PU202J |
| R | 505 | RS1/10S222J |
| R | 506 | RS1/10S222J |
| R | 507 | RS1/10S222J |
| R | 508 | RS1/10S222J |
| R | 509 | RD1/4PU2R2J |
| R | 510 | RD1/4PU2R2J |
| R | 511 | RD1/4PU2R2J |
| R | 512 | RD1/4PU2R2J |
| R | 513 | RD1/4PU2R2J |
| R | 514 | RD1/4PU2R2J |
| R | 515 | RD1/4PU2R2J |
| R | 516 | RD1/4PU2R2J |
| R | 517 | RD1/4PU103J |
| R | 518 | RS1/10S153J |

| =====Circuit Symbol & No.===Part Name | | | Part No. |
|---|---|---|---|
| R | 519 | | RS1/10S221J |
| R | 520 | | RS1/10S101J |
| R | 521 | | RS1/8S103J |
| R | 601 | | RS1/10S104J |
| R | 602 | | RS1/8S104J |
| R | 604 | | RS1/10S473J |
| R | 605 | | RS1/10S0R0J |
| R | 607 | | RD1/4PU0R0J |
| R | 610 | | RD1/4PU473J |
| R | 612 | | RS1/8S473J |
| R | 613 | | RS1/10S473J |
| R | 614 | | RS1/10S473J |
| R | 615 | | RS1/10S222J |
| R | 616 | | RS1/10S222J |
| R | 617 | | RS1/10S222J |
| R | 618 | | RD1/4PU103J |
| R | 619 | | RS1/8S473J |
| R | 620 | | RS1/10S473J |
| R | 621 | | RD1/4PU104J |
| R | 622 | | RS1/10S473J |
| R | 623 | | RD1/4PU473J |
| R | 624 | | RS1/10S332J |
| R | 625 | | RS1/10S102J |
| R | 626 | | RD1/4PU681J |
| R | 629 | | RS1/10S103J |
| R | 630 | | RD1/4PU152J |
| R | 631 | | RS1/10S102J |
| R | 632 | | RS1/10S124J |
| R | 633 | | RS1/10S102J |
| R | 634 | | RS1/10S102J |
| R | 635 | | RS1/10S102J |
| R | 636 | | RD1/4PU473J |
| R | 637 | | RD1/4PU473J |
| R | 638 | | RS1/10S101J |
| R | 639 | | RS1/10S101J |
| R | 640 | | RS1/10S620J |
| R | 641 | | RS1/10S181J |
| R | 642 | | RS1/10S181J |
| R | 643 | | RS1/10S223J |
| R | 644 | | RS1/10S223J |
| R | 645 | | RS1/10S102J |
| R | 646 | | RS1/10S102J |
| R | 647 | | RD1/4PU223J |
| R | 648 | | RD1/4PU223J |
| R | 649 | | RS1/10S223J |
| R | 650 | | RS1/8S472J |
| R | 651 | | RD1/4PU222J |
| R | 652 | | RS1/10S104J |
| R | 653 | | RS1/10S104J |
| R | 654 | | RD1/4PU472J |
| R | 655 | | RS1/10S223J |
| R | 656 | | RS1/10S103J |
| R | 657 | | RD1/4PU472J |
| R | 658 | | RS1/10S473J |
| R | 659 | | RS1/10S223J |
| R | 660 | | RD1/4PU473J |
| R | 661 | | RS1/10S473J |
| R | 662 | | RD1/4PU223J |
| R | 663 | | RD1/4PU473J |
| R | 664 | | RS1/10S222J |
| R | 665 | | RS1/10S0R0J |
| R | 667 | | RD1/4PU0R0J |
| R | 668 | | RS1/10S0R0J |
| R | 670 | | RS1/8S0R0J |
| R | 673 | | RS1/10S0R0J |

| =====Circuit Symbol & No.===Part Name | | | Part No. |
|---|---|---|---|
| R | 701 | | RD1/4PU102J |
| R | 702 | | RD1/4PU102J |
| R | 703 | | RS1/8S102J |
| R | 704 | | RD1/4PU102J |
| R | 705 | | RS1/10S102J |
| R | 706 | | RS1/10S0R0J |
| R | 707 | | RS1/10S333J |
| R | 708 | | RS1/10S102J |
| R | 709 | | RS1/10S562J |
| R | 710 | | RS1/10S222J |
| R | 711 | | RS1/10S222J |
| R | 712 | | RS1/10S562J |
| R | 713 | | RS1/10S684J |
| R | 714 | | RS1/8S103J |
| R | 715 | | RS1/10S224J |
| R | 716 | | RS1/10S224J |
| R | 717 | | RS1/10S222J |
| R | 718 | | RS1/10S222J |
| R | 719 | | RS1/10S223J |
| R | 720 | | RS1/10S223J |
| R | 721 | | RS1/10S105J |
| R | 722 | | RS1/10S224J |
| R | 723 | | RS1/10S562J |
| R | 724 | | RS1/10S681J |
| R | 725 | | RD1/4PU681J |
| R | 726 | | RS1/10S681J |
| R | 727 | | RS1/10S102J |
| R | 801 | | RD1/4PU102J |
| R | 802 | | RS1/10S472J |
| R | 803 | | RS1/10S101J |
| R | 804 | | RD1/4PU332J |
| R | 805 | | RS1/10S103J |
| R | 806 | | RD1/4PU102J |
| R | 807 | | RD1/4PU122J |
| R | 808 | | RS1/10S103J |
| R | 809 | | RS1/10S102J |
| R | 810 | | RD1/4PU473J |
| R | 812 | | RS1/10S103J |
| R | 813 | | RS1/10S102J |
| R | 814 | | RS1/10S473J |
| R | 816 | | RS1/10S472J |
| R | 817 | | RS1/10S223J |
| R | 818 | | RS1/10S222J |
| R | 819 | | RS1/10S472J |
| R | 820 | | RD1/4PU102J |
| R | 821 | | RD1/4PU1R5J |
| R | 822 | | RD1/4PU1R5J |
| R | 823 | | RD1/4PU1R0J |
| R | 824 | | RS1/10S103J |
| R | 825 | | RS1/10S103J |

CAPACITORS

| | | | |
|---|---|---|---|
| C | 201 | | CKSQYB561K50 |
| C | 202 | | CKSQYB561K50 |
| C | 205 | | CKSQYB103K25 |
| C | 206 | | CKSQYB103K25 |
| C | 207 | | CEALR47M50 |
| C | 208 | | CEALR47M50 |
| C | 209 | | CEJA1R0M50 |
| C | 210 | | CEJA1R0M50 |
| C | 213 | | CEAL220M16 |
| C | 214 | | CKSQYB821K50 |
| C | 216 | | CKSQYB103K25 |
| C | 218 | | CKSQYB104K16 |
| C | 219 | | CKSQYB104K16 |
| C | 220 | | CEAL100M16 |
| C | 221 | | CCSQCH121J50 |

| =====Circuit Symbol & No. | ===Part Name | Part No. |
|---|---|---|
| C 223 | | CKSQYB105K10 |
| C 224 | | CKSQYB105K10 |
| C 225 | | CEAL470M6R3 |
| C 226 | | CEAL470M6R3 |
| C 301 | | CKSQYB223K25 |
| C 302 | | CKSQYB223K25 |
| C 303 | | CKSQYB223K25 |
| C 307 | | CKSQYB103K25 |
| C 308 | | CCSQCH101K50 |
| C 311 | | CCSQCH101K50 |
| C 313 | | CKSQYB223K25 |
| C 314 | | CKSQYB103K25 |
| C 315 | | CEAL220M6R3 |
| C 316 | | CKSQYB103K25 |
| C 317 | | CKSQYB103K25 |
| C 318 | | CKSQYB102K50 |
| C 319 | | CEAL220M16 |
| C 320 | | CCSQCH150J50 |
| C 321 | | CCSQCH150J50 |
| C 322 | | CKSQYB103K25 |
| C 323 | | CKSQYB103K25 |
| C 324 | | CEALR47M50 |
| C 325 | 4.7µF/16V | CCH1250 |
| C 326 | | CKSQYB103K25 |
| C 327 | | CKSQYB332K50 |
| C 328 | | CKLSR473K16 |
| C 331 | | CKSQYB104K16 |
| C 332 | | CEAL220M6R3 |
| C 333 | | CKSQYB103K25 |
| C 334 | | CEAL220M6R3 |
| C 335 | | CKSQYB103K25 |
| C 336 | | CKSQYB223K25 |
| C 337 | | CKSQYB103K25 |
| C 340 | 4.7µF/16V | CCH1165 |
| C 341 | | CKSQYB103K25 |
| C 342 | | CKSQYB473K16 |
| C 343 | | CKSQYB102K50 |
| C 401 | | CEJA2R2M50 |
| C 402 | | CEJA2R2M50 |
| C 403 | | CEJANP100M10 |
| C 404 | | CEJANP100M10 |
| C 405 | | CKSQYB822K50 |
| C 406 | | CKSQYB822K50 |
| C 407 | | CEJA1R0M50 |
| C 408 | | CEJA1R0M50 |
| C 409 | | CKSQYB183K25 |
| C 410 | | CKSQYB183K25 |
| C 411 | | CKSQYB102K50 |
| C 412 | | CKSQYB102K50 |
| C 413 | | CEJANP2R2M35 |
| C 414 | | CEJANP2R2M35 |
| C 415 | | CKSQYB333K25 |
| C 416 | | CKSQYB333K25 |
| C 417 | | CEJA220M6R3 |
| C 418 | | CEJA2R2M50 |
| C 419 | | CKSQYB104K16 |
| C 420 | | CKSQYB103K25 |
| C 421 | | CEJA2R2M50 |
| C 422 | | CEJA2R2M50 |
| C 423 | | CEJA470M10 |
| C 424 | | CKSQYB104K16 |
| C 425 | | CKSYB105K16 |
| C 426 | | CKSYB105K16 |
| C 501 | | CEJA4R7M35 |
| C 502 | | CEJA4R7M35 |
| C 503 | | CEJA4R7M35 |
| C 504 | | CEJA4R7M35 |
| C 505 | | CKSQYB102K50 |
| C 506 | | CKSQYB102K50 |
| C 507 | | CKSQYB102K50 |
| C 508 | | CKSQYB102K50 |
| C 509 | | CKSQYB104K16 |
| C 510 | | CKSQYB104K16 |
| C 511 | | CKSQYB104K16 |
| C 512 | | CKSQYB104K16 |
| C 513 | | CKSQYB104K16 |
| C 514 | | CKSQYB104K16 |
| C 515 | | CKSQYB104K16 |
| C 516 | | CKSQYB104K16 |
| C 517 | | CEJA330M10 |
| C 518 | | CEJA100M16 |
| C 519 | | CKSQYB104K16 |
| C 520 | | CKSQYB104K16 |
| C 601 | | CCSQCH101K50 |
| C 602 | | CEAL4R7M35 |
| C 604 | | CCSQCH101K50 |
| C 606 | | CKSQYB104K16 |
| C 607 | | CKSQYB224K16 |
| C 608 | | CEJA2R2M50 |
| C 609 | | CKSQYB102K50 |
| C 610 | | CKSQYB104K16 |
| C 611 | | CEJA1R0M50 |
| C 612 | | CEJA1R0M50 |
| C 613 | | CEJA1R0M50 |
| C 614 | | CEJA1R0M50 |
| C 615 | | CEJA100M16 |
| C 616 | | CEJA100M16 |
| C 617 | | CEJA4R7M35 |
| C 618 | | CEJA4R7M35 |
| C 619 | | CKSQYB102K50 |
| C 620 | | CCSQCH101K50 |
| C 621 | | CCSQCH101J50 |
| C 623 | | CKSQYB102K50 |
| C 701 | | CEAL4R7M35 |
| C 702 | | CKSQYB104K16 |
| C 703 | | CCSQCH220J50 |
| C 704 | | CCSQCH220J50 |
| C 705 | | CKSQYB472K50 |
| C 706 | | CKSQYB104K16 |
| C 707 | | CKSYB105K16 |
| C 708 | | CKSQYB104K16 |
| C 709 | | CKSQYB222K50 |
| C 710 | | CKSQYB104K16 |
| C 711 | | CKSQYB104K16 |
| C 712 | | CKSQYB223K25 |
| C 713 | | CEAL4R7M35 |
| C 714 | | CKSQYB103K25 |
| C 715 | | CKSQYB103K25 |
| C 716 | | CKSQYB223K25 |
| C 717 | | CKSQYB471K50 |
| C 801 | 3300µF/16V | CCH1018 |
| C 802 | 470µF/16V | CCH1183 |
| C 803 | | CKSQYB102K50 |
| C 804 | | CKSQYB473K16 |
| C 805 | | CEJA101M10 |
| C 806 | | CKSQYB103K25 |
| C 807 | 330µF/10V | CCH1181 |
| C 808 | | CKSQYB103K25 |
| C 809 | | CKSQYB104K16 |
| C 811 | 100µF/16V | CCH1179 |

| =====Circuit Symbol & No.===Part Name | | | Part No. |
|---|---|---|---|
| **D** Unit Number : CWM5181(KEH-P3600R) | | | |
| Unit Number : CWM5182(KEH-P3630R) | | | |
| Unit Name : Key Board Unit | | | |
| MISCELLANEOUS | | | |
| IC | 901 | IC | PD6196A |
| D | 901 | Diode | STZ6R2N |
| L | 901 | Ferri-Inductor | LAU101K |
| X | 901 | Ceramic Resonator 4.97MHz | CSS1312 |
| S | 901 | Switch | CSG1081 |
| S | 902 | Switch | CSG1081 |
| S | 903 | Switch | CSG1093 |
| S | 904 | Switch | CSG1093 |
| S | 905 | Switch | CSG1093 |
| S | 906 | Switch | CSG1093 |
| | | Switch | |
| S | 907 | Switch | CSG1093 |
| S | 908 | Switch | CSG1093 |
| S | 909 | Switch | CSG1093 |
| S | 910 | Switch | CSG1093 |
| S | 911 | Switch | CSG1081 |
| S | 912 | Switch | CSG1093 |
| S | 913 | Switch | CSG1081 |
| S | 914 | Switch | CSG1093 |
| S | 915 | Switch | CSG1081 |
| S | 916 | Switch | CSG1093 |
| S | 917 | Switch | CSG1081 |
| S | 918 | Switch | CSG1081 |
| S | 919 | Switch | CSG1093 |
| S | 920 | Switch | CSG1093 |
| IL | 901 | Lamp 14V 40mA(KEH-P3600R) | CEL1481 |
| IL | 901 | Lamp 14V 40mA (KEH-P3630R) | CEL1479 |
| IL | 902 | Lamp 14V 40mA (KEH-P3600R) | CEL1481 |
| IL | 902 | Lamp 14V 40mA (KEH-P3630R) | CEL1479 |
| IL | 903 | Lamp 14V 40mA (KEH-P3600R) | CEL1481 |
| IL | 903 | Lamp 14V 40mA (KEH-P3630R) | CEL1479 |
| IL | 904 | Lamp 14V 40mA (KEH-P3600R) | CEL1481 |
| IL | 904 | Lamp 14V 40mA (KEH-P3630R) | CEL1479 |
| IL | 905 | Lamp 14V 40mA (KEH-P3600R) | CEL1481 |
| IL | 905 | Lamp 14V 40mA (KEH-P3630R) | CEL1479 |
| LCD | 901 | LCD (KEH-P3600R) | CAW1383 |
| LCD | 901 | LCD (KEH-P3630R) | CAW1391 |

| =====Circuit Symbol & No.===Part Name | | | Part No. |
|---|---|---|---|
| RESISTORS | | | |
| R | 901 | | RS1/10S222J |
| R | 902 | | RS1/10S222J |
| R | 903 | | RS1/10S472J |
| R | 906 | | RS1/10S473J |
| R | 907 | | RS1/10S473J |
| R | 908 | | RS1/10S473J |
| R | 909 | | RS1/10S473J |
| R | 910 | | RS1/10S473J |
| R | 911 | | RS1/10S473J |
| R | 912 | | RS1/10S473J |
| R | 914 | | RS1/10S0R0J |
| R | 916 | | RS1/10S0R0J |
| CAPACITORS | | | |
| C | 901 | | CEAL100M16 |
| C | 904 | | CKSQYB104K50 |
| C | 905 | | CKSQYB102K50 |
| C | 906 | | CCSCH101J50 |
| **C** Unit Number : | | | |
| Unit Name : Cassette PCB | | | |
| D | 1 | Diode | 1SR-35-100A |
| S | 1 | Switch(Load) | ESN1016 |
| S | 2 | Switch(Mute) | ESN1017 |
| S | 3 | Switch(FWD/REV) | ESH1006 |
| S | 4 | Switch(Eject) | ESG1002 |
| R | 1 | | RD1/4HM472J |
| Miscellaneous Parts List | | | |
| M | 1 | Motor Unit | EXA1502 |
| HD | 1 | Head Assy | EXA1466 |
| SO | 1 | Solenoid | EXP1012 |

# 6. ADJUSTMENT

## ● Connection Diagram

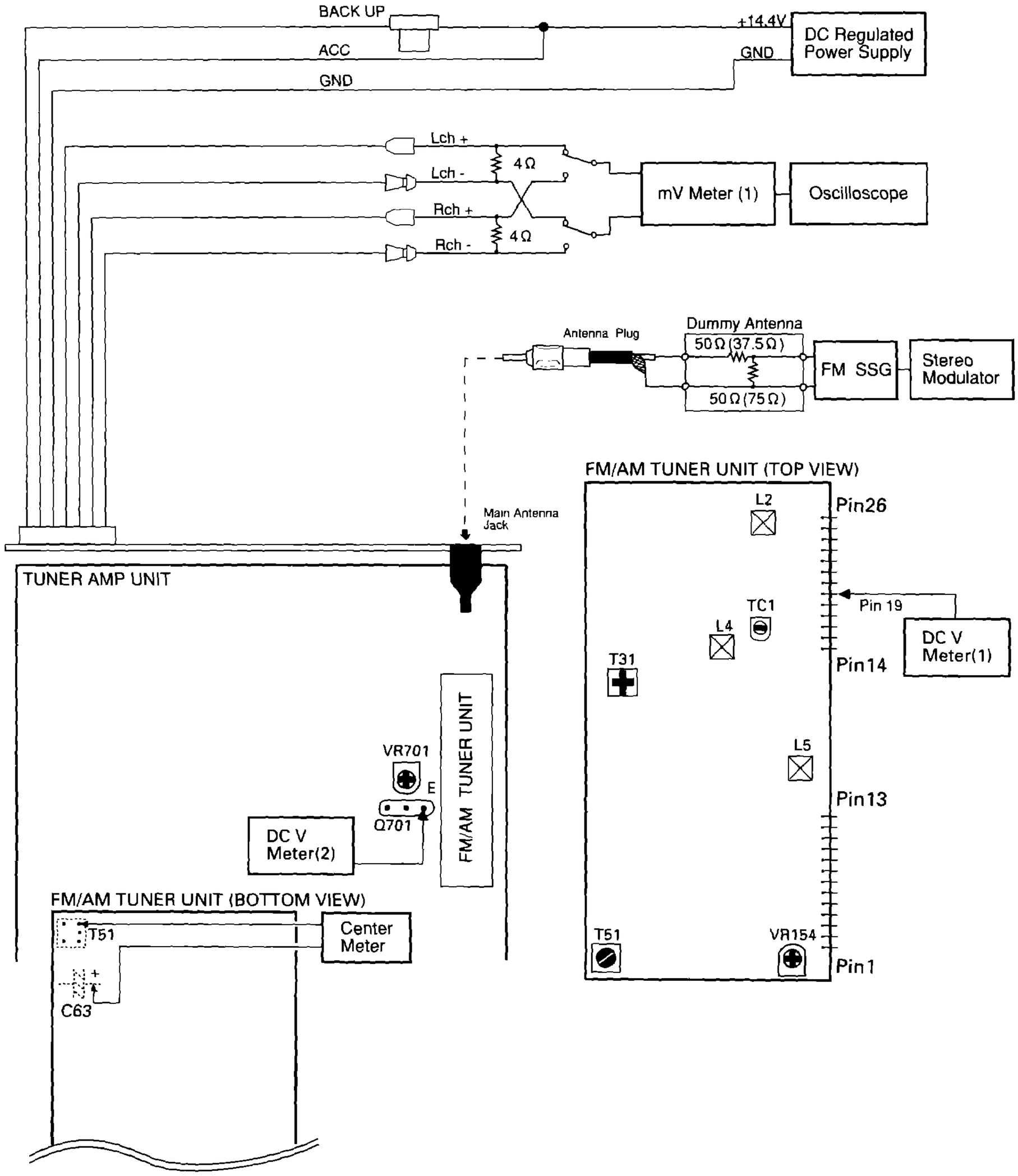



Fig. 16

## FM ADJUSTMENT

Modulation M:MONO MOD., 400Hz 30%(22.5kHz Dev.) or 400Hz 100%(75kHz Dev.)
S:STEREO MOD., 1kHz, L or R=30%(20.25kHz+7.5kHz Dev.)
S2:STEREO MOD., 400Hz, L or R=60%(40.50kHz+7.5kHz Dev.)

NOTE:Before proceeding to further adjustments after switching power ON, let the tuner run for ten minutes to allow the circuits to stabilize.

| | No. | FM SSG | | Displayed | Adjustment | Adjustment Method |
|---|---|---|---|---|---|---|
| | | Frequency(MHz) | Level(dBf) | Frequency(MHz) | Point | (Switch Position) |
| TUN Volt | 1 | ••••• | ••••• | 108.0 | L5 | DC V Meter(1) : 6V |
| IF | 2 | 98.1 M | 60 | 98.1 | T51 | Center Meter : 0 |
| ANT Coil | 3 | 98.1 M | 5 | 98.1 | L2 | mV Meter(1) : Maximum |
| RF Coil | 4 | 98.1 M | 5 | 98.1 | L4 | mV Meter(1) : Maximum |
| Image | 5 | 129.3 M | 60—80 | 107.9 | TC1 | mV Meter(1) : Minimum |
| IFT | 6 | 98.1 M | 5 | 98.1 | T31 | mV Meter(1) : Maximum (STEREO MODE) |
| ARC | 7 | 98.1 S | 40 | 98.1 | VR154 | mV Meter(1) : Separation 5dB (STEREO MODE) |

## RDS SL ADJUSTMENT

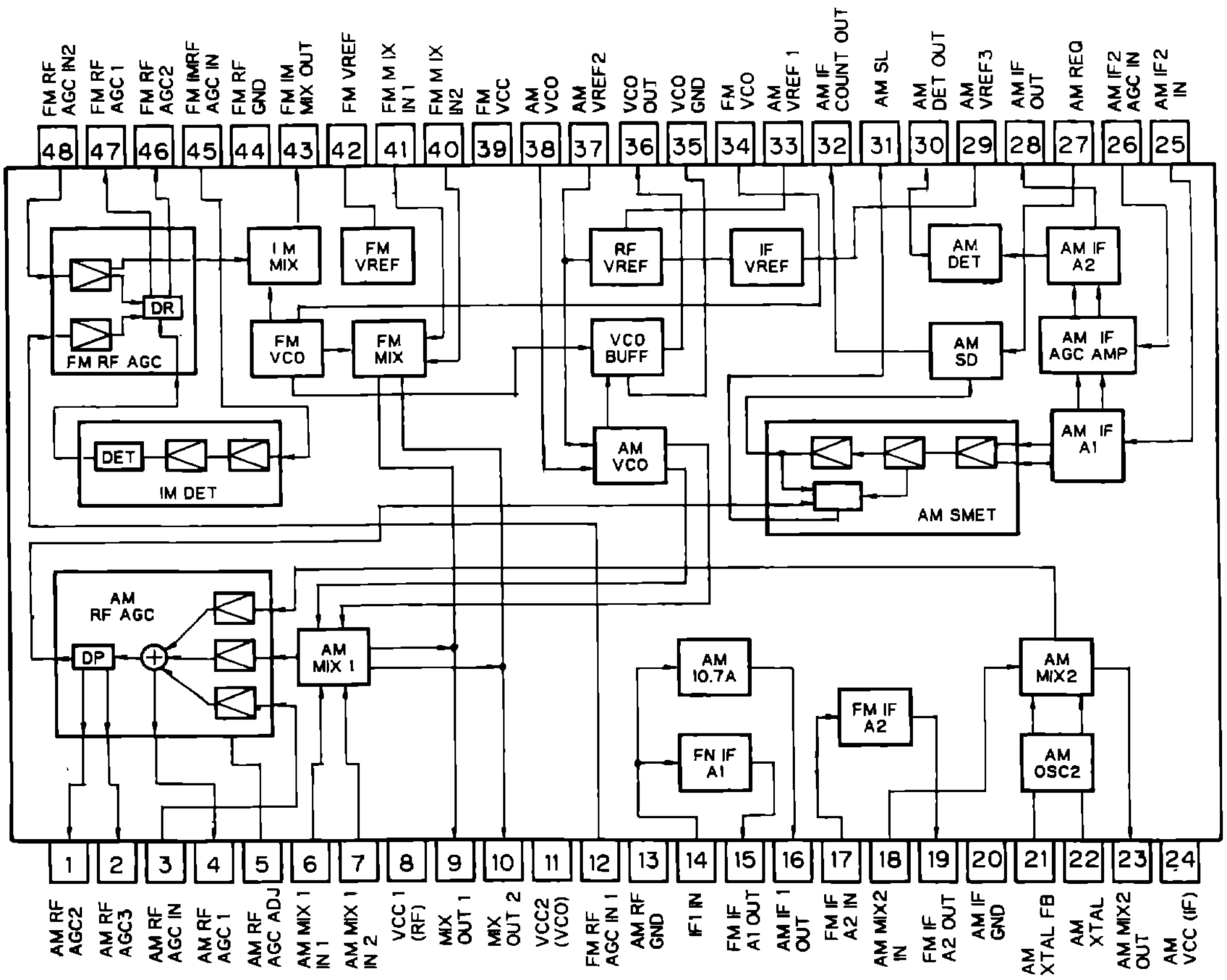
| | No. | FM SSG | | Displayed | Adjustment | Adjustment Method |
|---|---|---|---|---|---|---|
| | | Frequency(MHz) | Level(dBf) | Frequency(MHz) | Point | (Switch Position) |
| | 1 | 104.0 S2 | 35 | 104.0 | VR701 | DC V Meter(2) : 1.75V+0.05V,-0.35 |

# 7. GENERAL INFORMATION

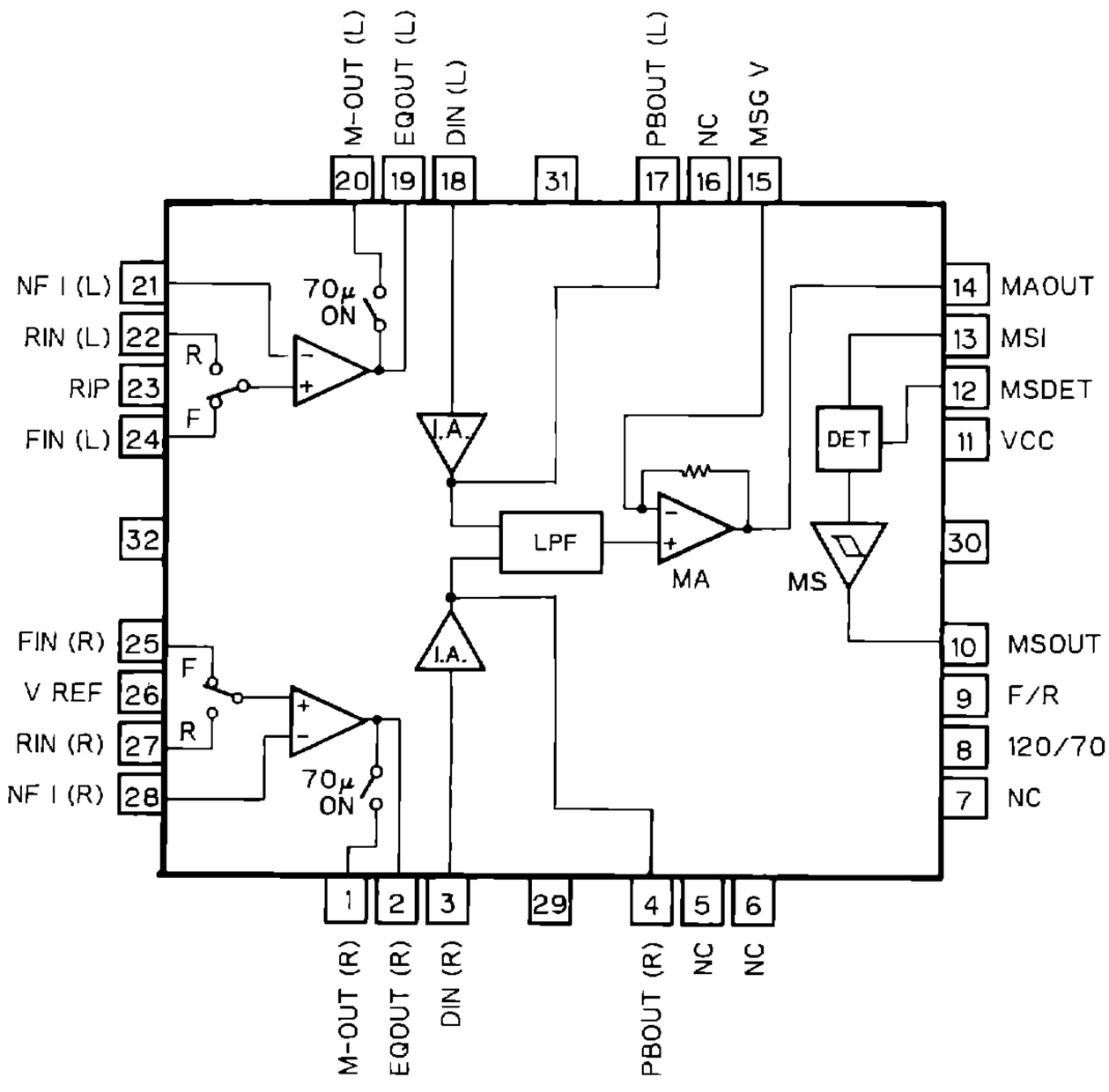
## 7.1 PARTS

### 7.1.1 IC

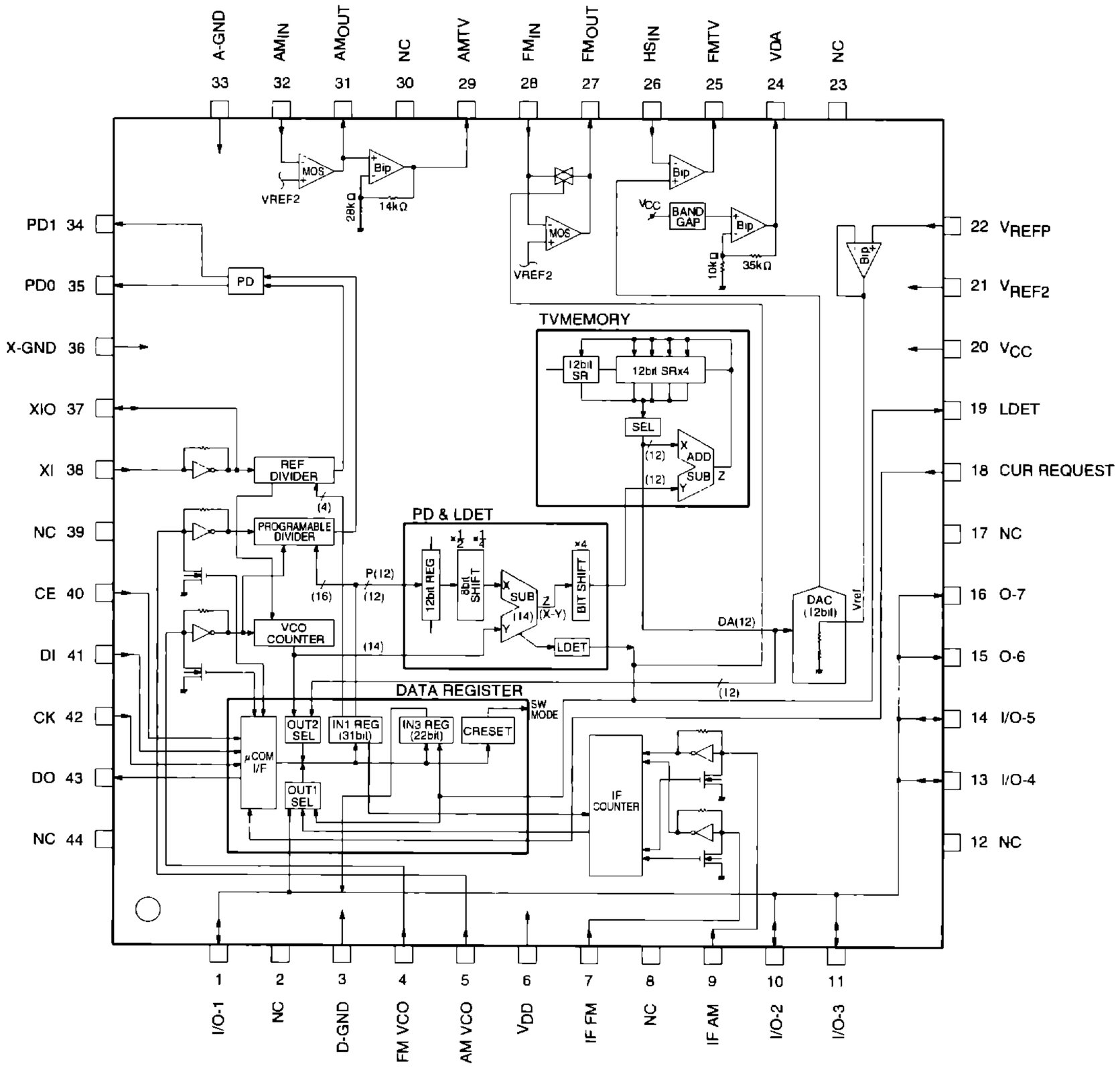
PA4023B



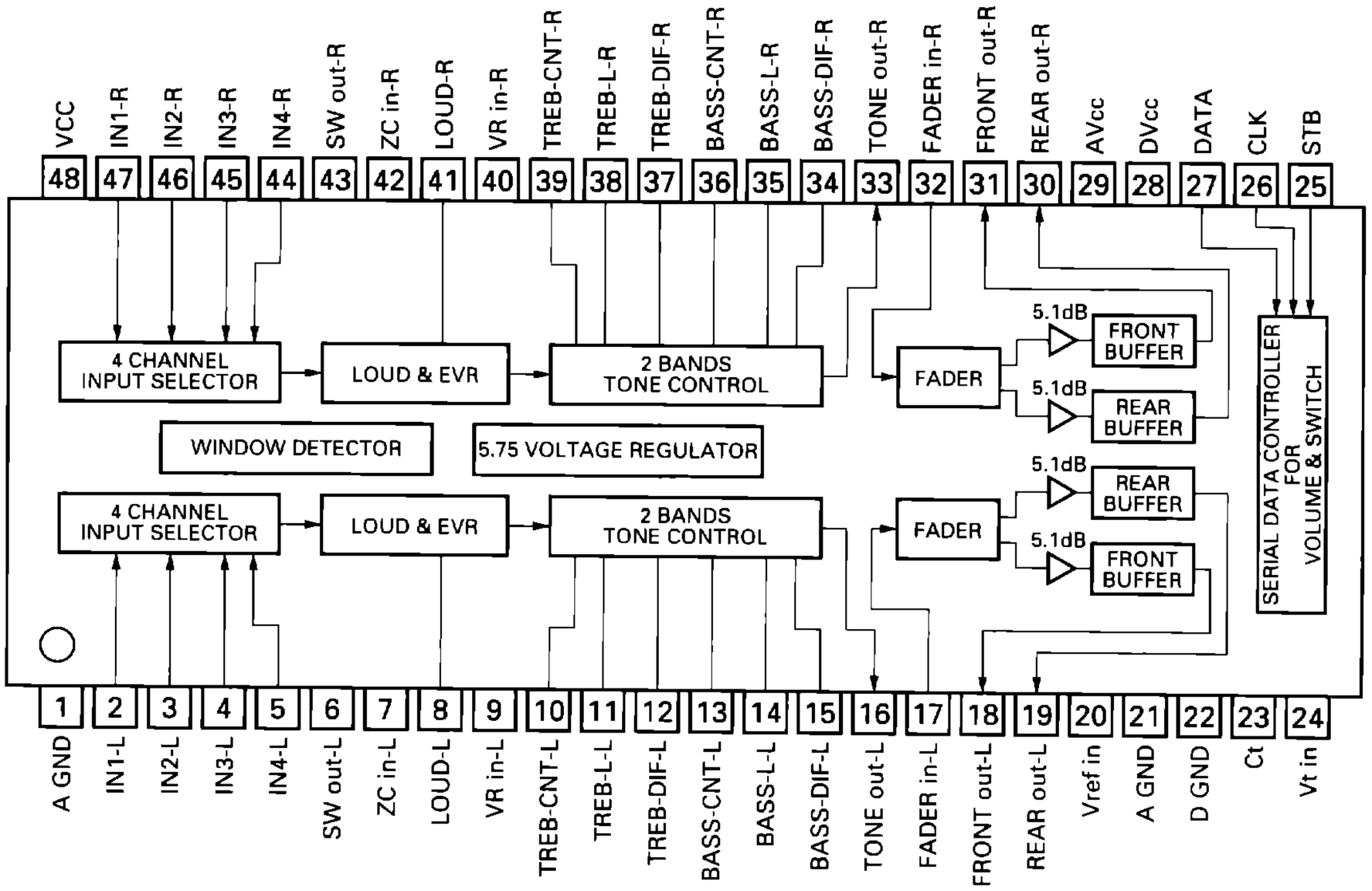

HA12197F



PM2005B




SN761027DL

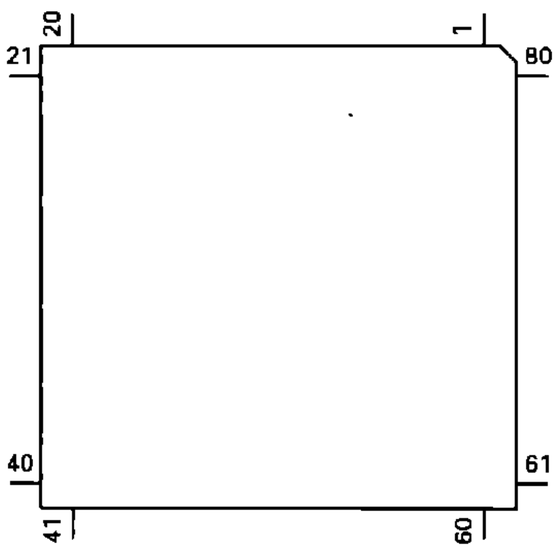


## ● Pin Functions (PD4744A)

| Pin No. | Pin Name | I/O | Format | Function and Operation |
|---|---|---|---|---|
| 1 | RDT | I | | RDS demodulation data input |
| 2 | L/S | O | C | Sensitivity of noise level select |
| 3 | ADPW | O | C | Control output for analog input reference power |
| 4 | GND | | | GND |
| 5 | DRST | O | C | Decoder reset output |
| 6 | MDSENS | I | | Modulation detect input |
| 7 | AVREF1 | | | (D/A converter standard voltage) |
| 8 | KYDT | I | | Key data input |
| 9 | DPDT | O | C | Key data output |
| 10 | DSENS | I | | Grille detach sense |
| 11 | TUNPDI | I | | PLL IC data input |
| 12 | TUNPDO | O | C | PLL IC data output |
| 13 | TUNPCK | O | C | PLL IC clock |
| 14 | TUNPCE | O | C | PLL IC chip enable |
| 15 | CURRQ | O | C | Tuner voltage FIX output |
| 16 | NC | | | Not used |
| 17 | SK | I | | SK signal input |
| 18 | MUTCNT | I | | NF mute control input |
| 19 | RECIVE | O | C | During RDS data reception output |
| 20 | NC | | | Not used |
| 21 | EORR | O | C | Correct RDS error output |
| 22 | SWVDD | O | C | Grille power supply control output |
| 23 | ILMPW | O | C | Illumination power supply control output |
| 24 | VDT | O | C | Data output for electronic volume |
| 25 | VCK | O | C | Clock output for electronic volume |
| 26 | VST | O | C | Strobe pulse output for electronic volume |
| 27 | SYSPW | O | C | System power supply control output |
| 28 | MUTE | O | C | System mute output |
| 29 | DMINH | O | C | Mechanism mute cancel output |
| 30 | NC | | | Not used |
| 31 | B.REM | O | C | B remote output |
| 32 | EW/BEW | I | | Model sense input |
| 33 | GND | | | GND |
| 34–36 | NC | | | Not used |
| 37 | TMUTE | O | N | Tuner mute output |
| 38 | FM | O | N | FM power control output |
| 39 | AM | O | N | AM power control output |
| 40 | ASENBO | O | C | Slave power supply control output |
| 41–44 | NC | | | Not used |
| 45 | PEE | O | C | Beep tone output |
| 46 | NC | | | Not used |
| 47 | RDS57K | I | | 57kHz BP-OUT sense input |
| 48 | NC | | | Not used |
| 49 | MSOUT | O | C | MS output |
| 50 | EJECT | I | | Eject key input pin |
| 51 | TAPLD | I | | Tape loading input |
| 52 | MECPW | O | C | Mechanism power output |
| 53 | MCMUT | I | C | Mechanism mute request |
| 54 | NOR/REW | I | | Normal reverse input |
| 55 | MSIN | I | | MS sense |
| 56 | TX | O | C | IP BUS data output |
| 57 | RX | I | | IP BUS data input |
| 58 | MTL | O | C | Metal output |

| Pin No. | Pin Name | I/O | Format | Function and Operation |
|---|---|---|---|---|
| 59 | NR | O | C | Dolby output |
| 60 | $\overline{\text{RESET}}$ | I | | Reset Input |
| 61 | $\overline{\text{LDET}}$ | I | | PLL lock sense input |
| 62 | $\overline{\text{RCK}}$ | I | | RDS demodulation clock input |
| 63 | CLKIN | I | | Clock input |
| 64 | $\overline{\text{ASENS}}$ | I | | ACC power sense input |
| 65 | $\overline{\text{BSENS}}$ | I | | Back up power sense input |
| 66 | SD | I | | SD input |
| 67 | $\overline{\text{ST}}$ | I | | |
| 68 | VDD | | | Power supply |
| 69 | X2 | | | Crystal oscillator connection pin |
| 70 | X1 | | | Crystal oscillator connection pin |
| 71 | GND | | | GND |
| 72 | XT2 | | | Sub clock |
| 73 | TESTIN | I | | Test program mode input |
| 74 | AVDD | | | Positive power supply terminal for analog circuit |
| 75 | AVREF0 | | | (A/D converter standard voltage input) |
| 76 | SL | I | | Signal level input |
| 77 | CL | I | | Synchronizing signal input of display data latch |
| 78 | NL | I | | Noise level input |
| 79 | TL | I | | Trigger level input |
| 80 | $\overline{\text{RDSLK}}$ | I | | RDS LK signal input |

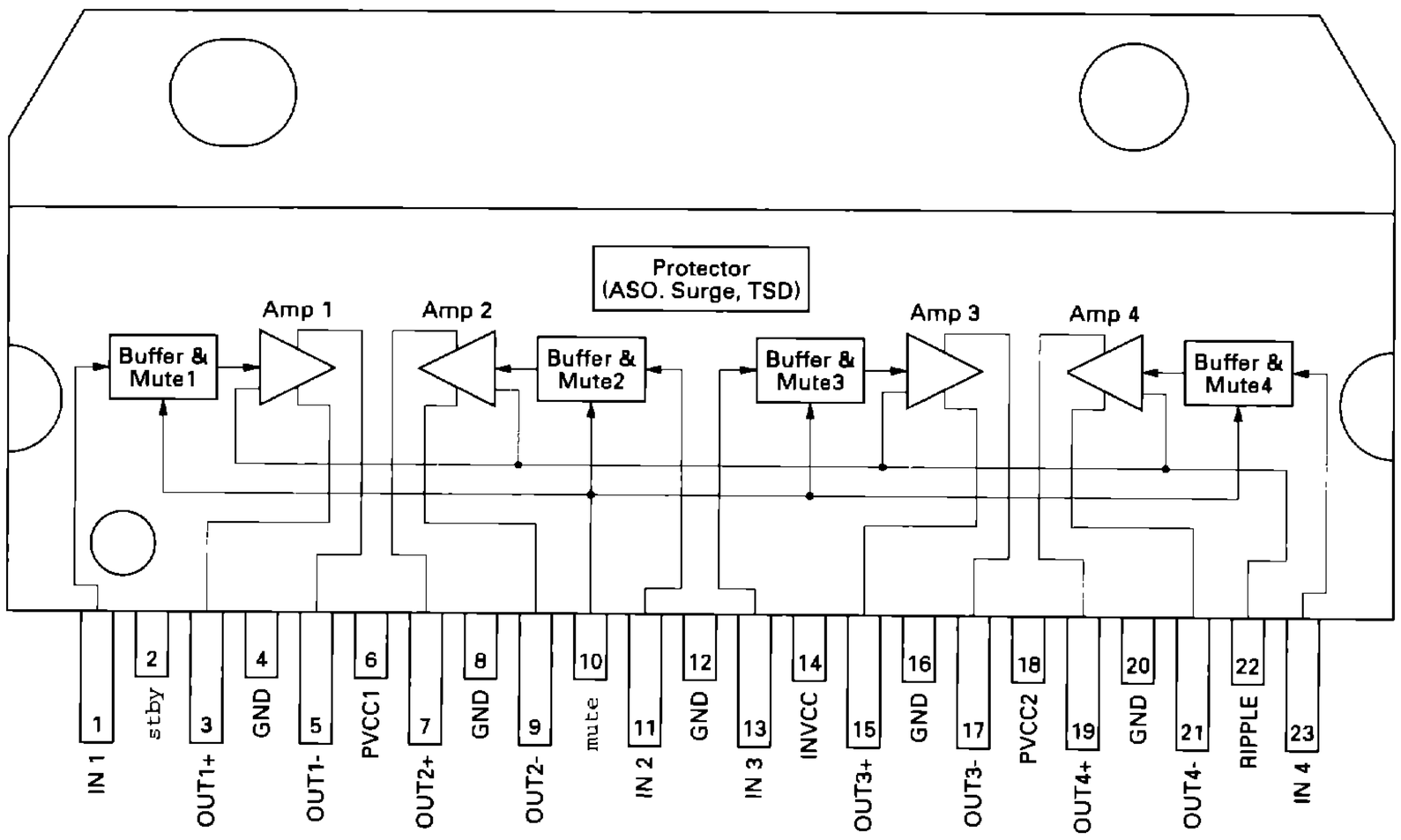
*PD4744A




*IC's marked by* are MOS type.*
*Be careful in handling them because they are very liable to be damaged by electrostatic induction.*

| Format | Meaning |
|---|---|
| C | C MOS |
| N | N channel open drain |

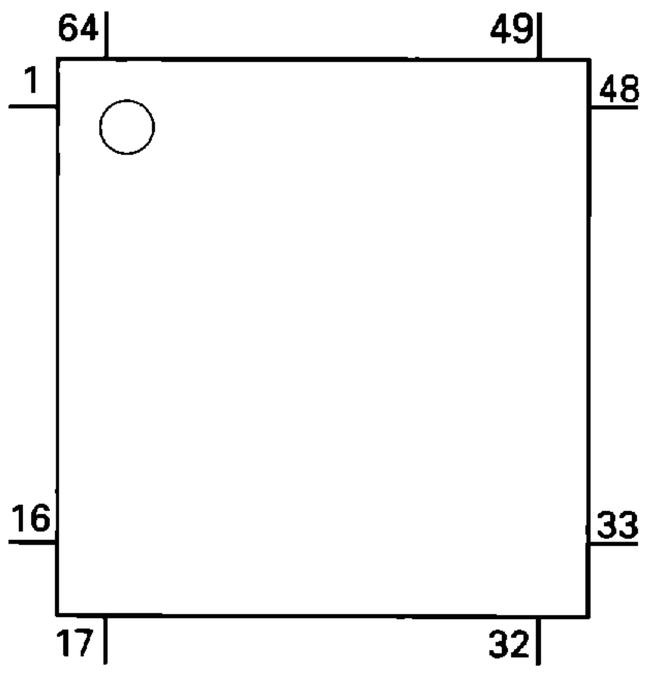
HA13155



## ● Pin Functions(PD6196A)

| Pin No. | Pin Name | I/O | Function and Operation |
|---|---|---|---|
| 1–5 | SEG4-0 | O | LCD segment output |
| 6–9 | COM3-0 | O | Common driver output |
| 10 | V3 | | LCD bias power supply |
| 11–14 | KS4-1 | O | Key strobe output |
| 15,16 | KD1,2 | I | Key data input |
| 17 | REM | I | Remote control reception |
| 18 | SI | I | UART input |
| 19 | $\overline{RST}$ | I | System reset |
| 20 | SO | O | UART output |
| 21 | MODA | | GND |
| 22 | X0 | | Crystal oscillator connection pin |
| 23 | X1 | | Crystal oscillator connection pin |
| 24 | VSS | | GND |
| 25,26 | KD3,4 | I | Key data input |
| 27,28 | KS6,5 | O | Key strobe output |
| 29–55 | SEG39-13 | O | LCD segment output |
| 56 | VCC | | 5V |
| 57–64 | SEG12-5 | O | LCD segment output |

*PD6196A



## 7.1.2 DISPLAY

- CAW1383(KEH-P3600R)
- CAW1391(KEH-P3630R)

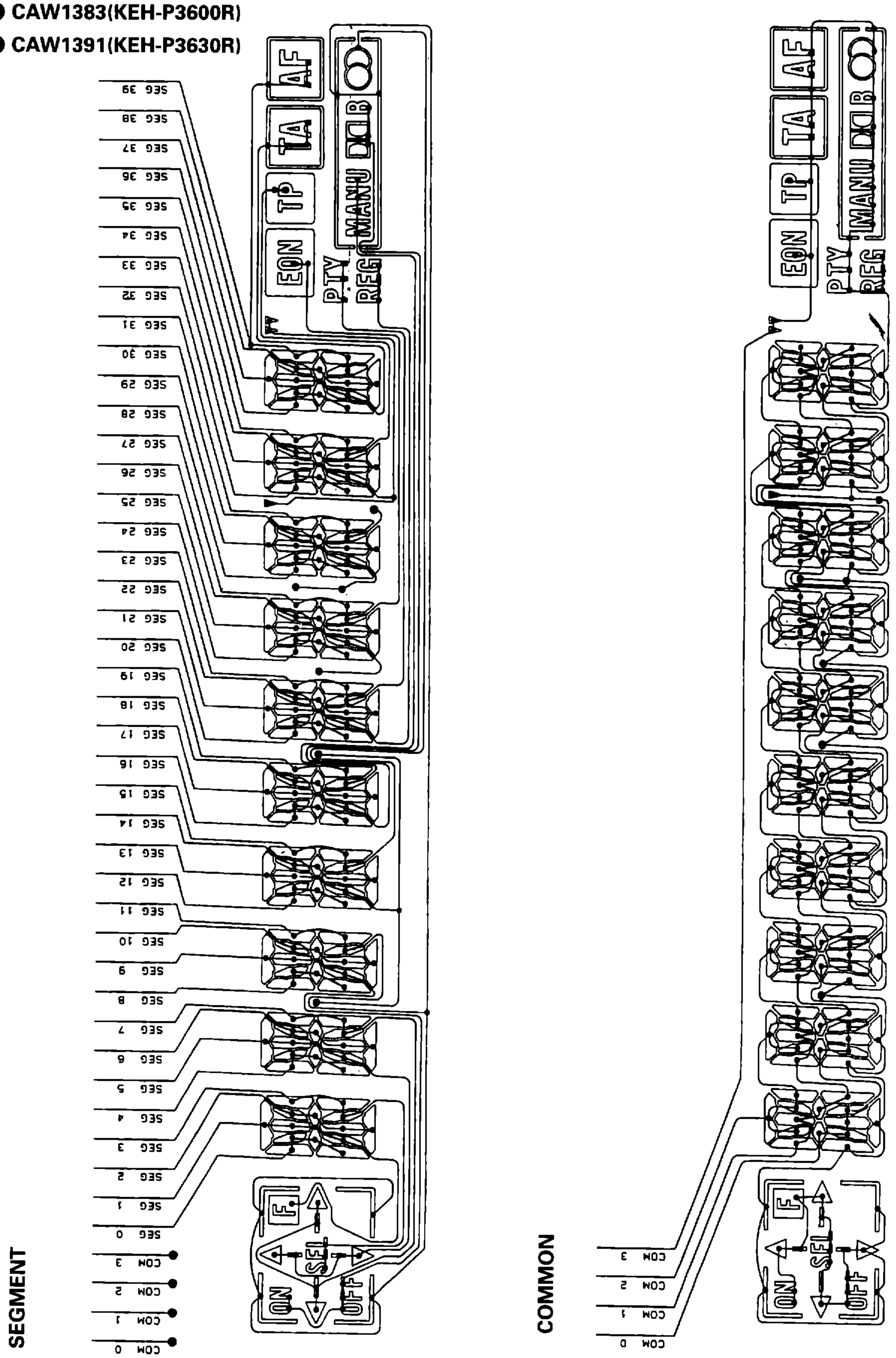



Fig. 17

# 7.2 DIAGNOSIS

## 7.2.1 DISASSEMBLY

### 1. Detach Grille Assy

1. A×3

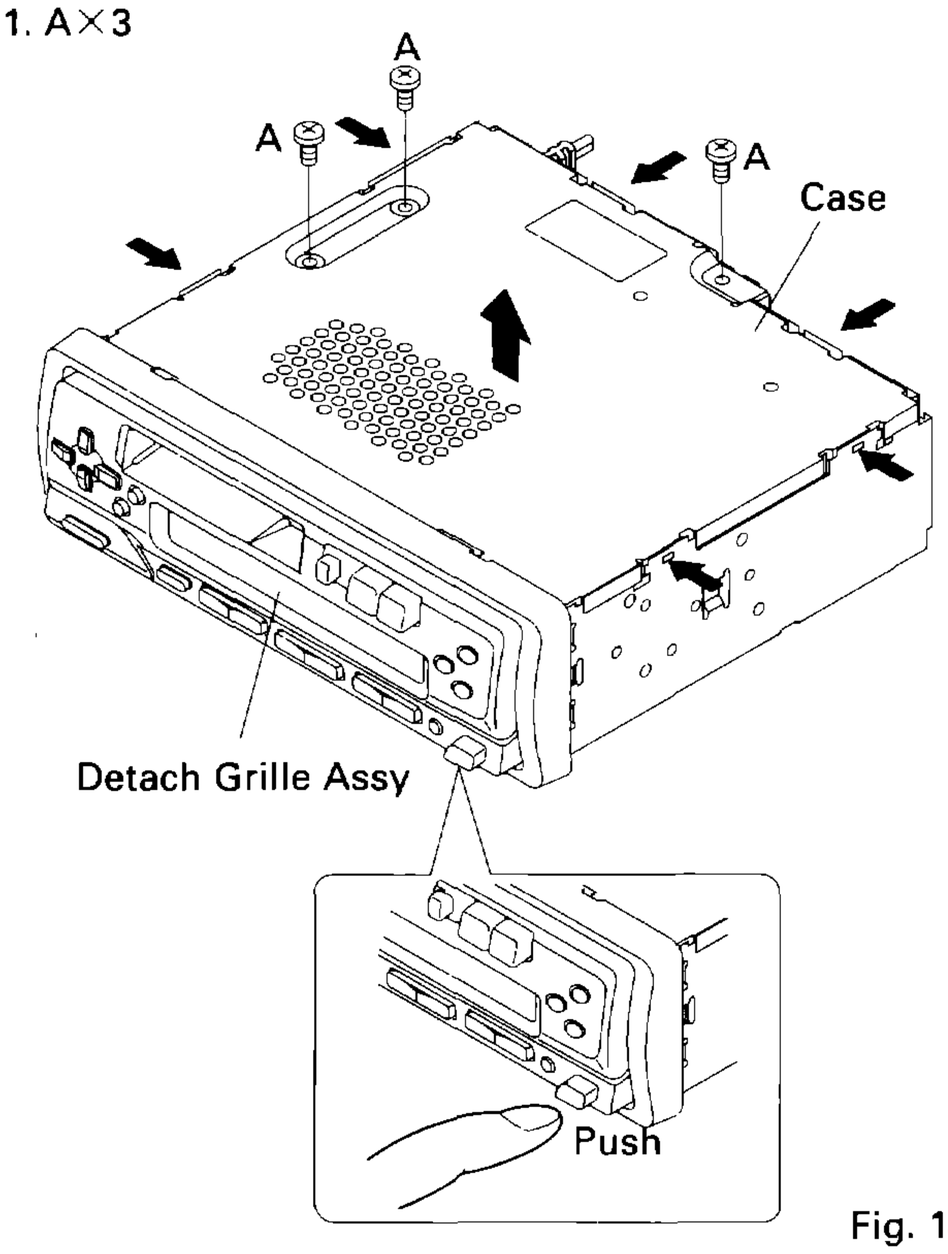



Fig. 18

### 2. Panel Assy

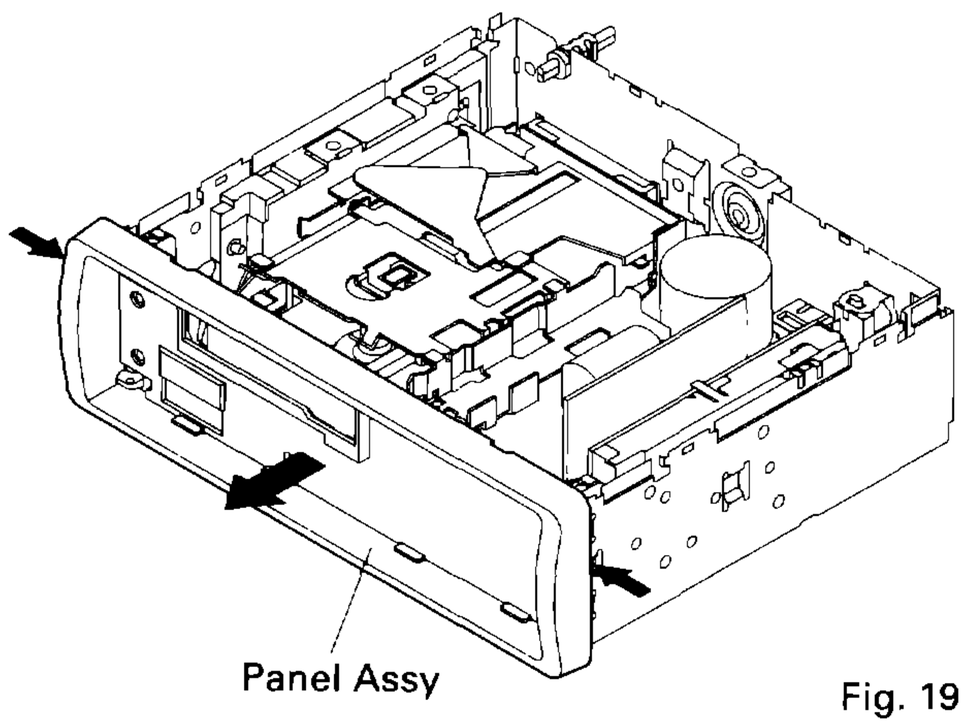



Fig. 19

### 3. Cassette Mechanism Assy

1. A×4

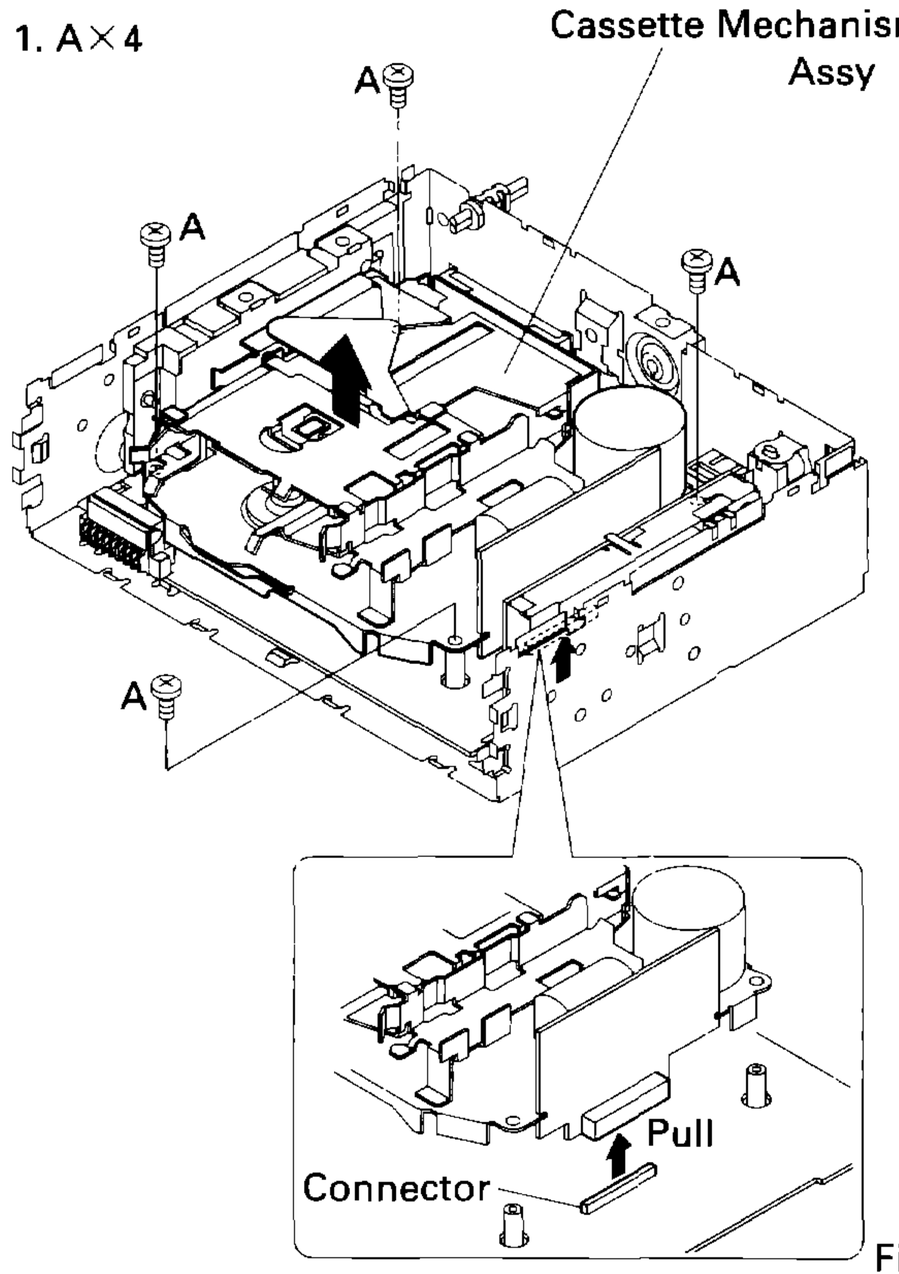



Fig. 20

### 4. Tuner Amp Unit

1. A×5
2. B×2

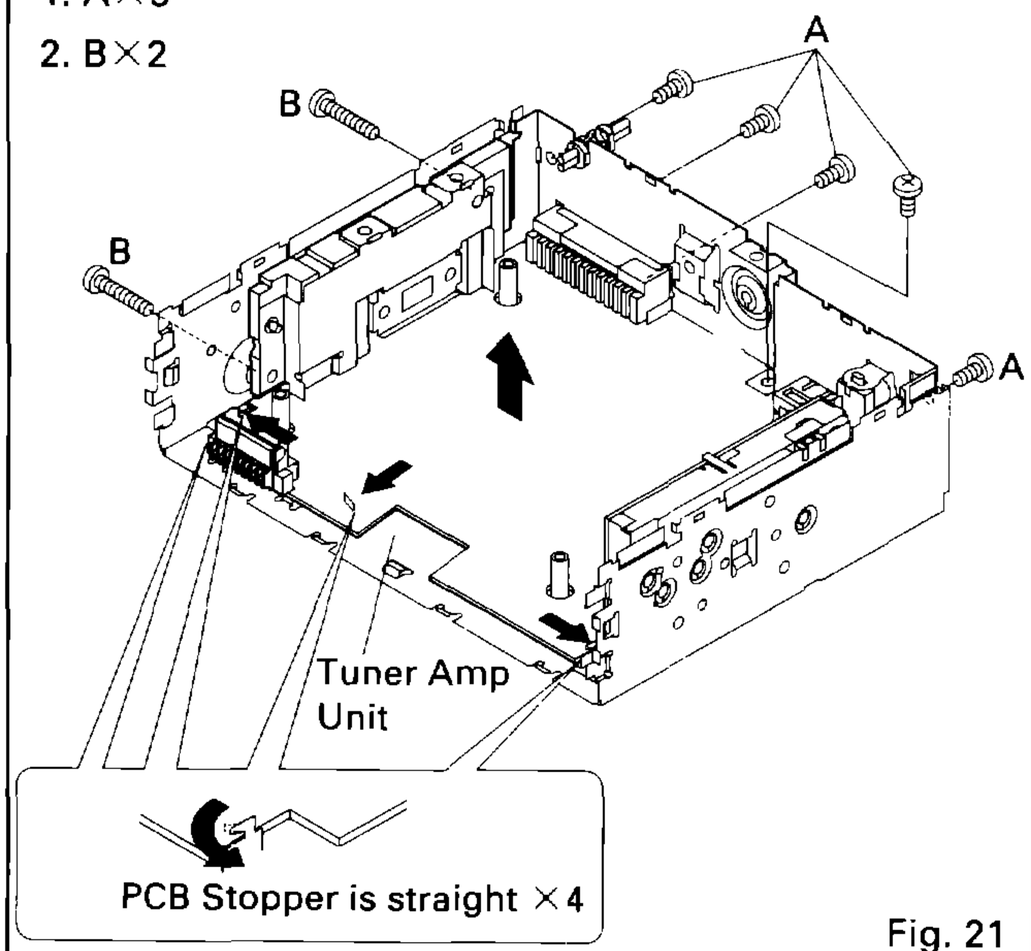
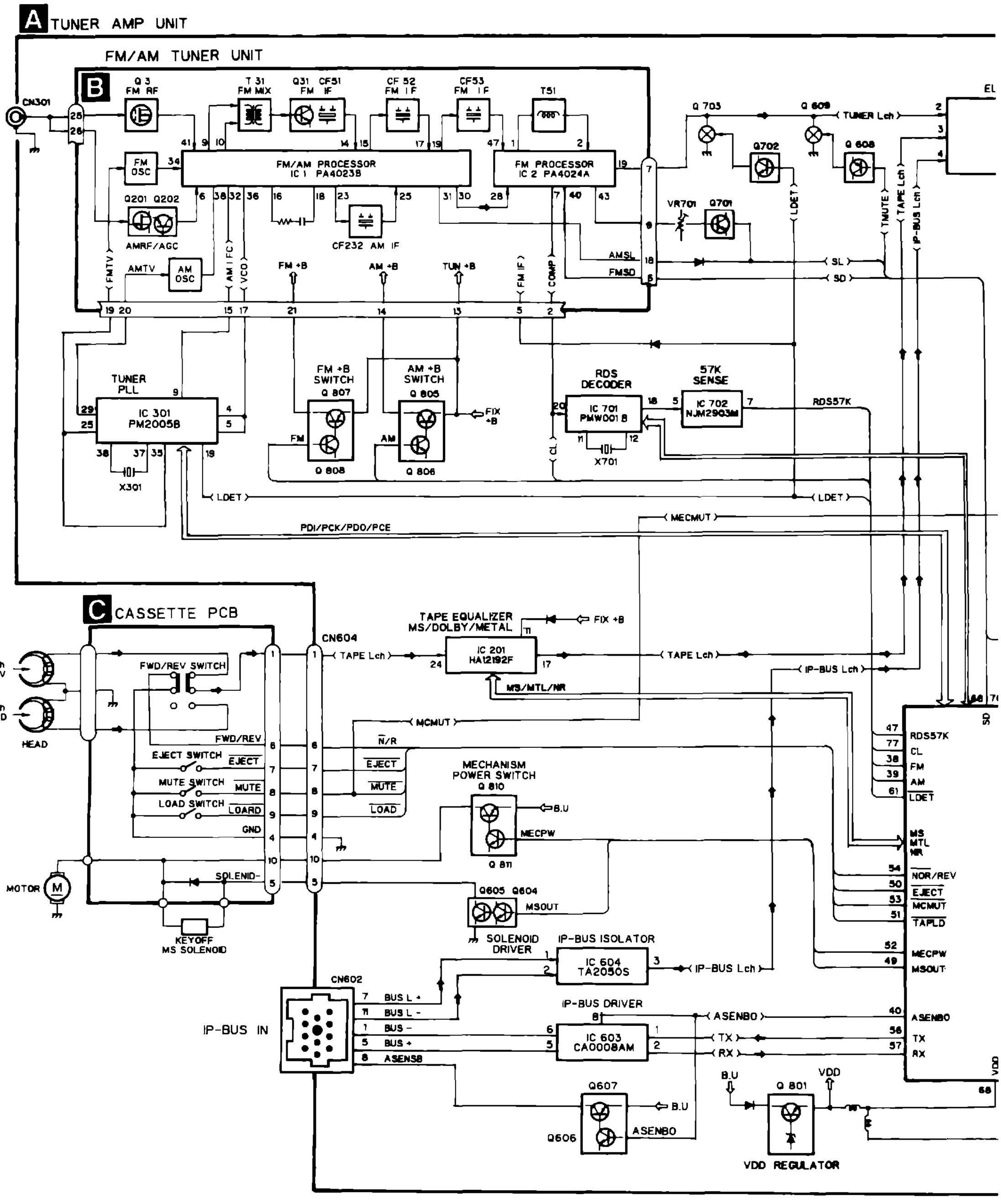



Fig. 21

# 7.3 EXPLANATION

## 7.3.1 BLOCK DIAGRAM



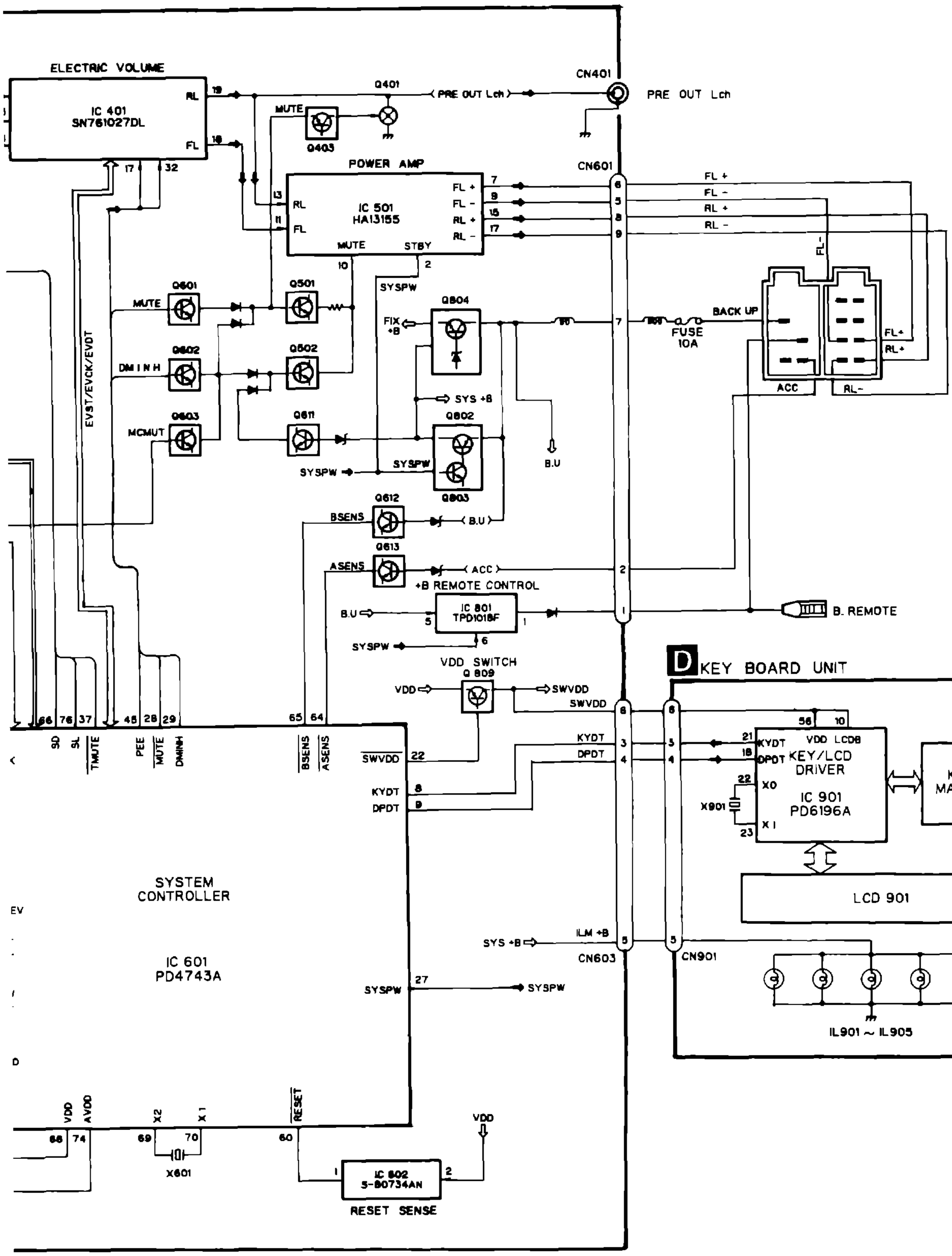

ELECTRIC VOLUME
IC 401
SN761027DL
RL
FL
19
18
17
32
Q401
MUTE
Q403
PRE OUT Lch
CN401
PRE OUT Lch
POWER AMP
IC 501
HA13155
RL
FL
MUTE
STBY
FL +
FL -
RL +
RL -
13
11
7
9
15
17
10
2
CN601
6
5
8
9
FL +
FL -
RL +
RL -
FL-
FL+
RL+
RL-
ACC
BACK UP
FUSE
10A
Q601
Q501
MUTE
Q602
Q502
DMINH
Q603
MCMUT
Q804
FIX
+B
SYS +B
Q611
Q802
Q803
SYSPW
B.U
Q612
BSENS
Q613
ASENS
ACC
+B REMOTE CONTROL
IC 801
TPD1018F
B.U
SYSPW
B. REMOTE
VDD SWITCH
Q 809
VDD
SWVDD
EVST/EVCK/EVDT
66
76
37
48
28
29
65
64
SD
SL
TMUTE
PEE
MUTE
DMINH
BSENS
ASENS
SWVDD
22
KYDT
8
DPDT
9
SYSTEM
CONTROLLER
IC 601
PD4743A
SYS +B
ILM +B
CN603
SYSPW
27
D KEY BOARD UNIT
KYDT
DPDT
3
4
5
4
56
10
21
18
22
23
X901
KEY/LCD
DRIVER
IC 901
PD6196A
XO
X I
VDD LCD8
KEY
MATRIX
LCD 901
CN901
IL901 ~ IL905
VDD
AVDD
X2
X1
RESET
68
74
69
70
60
X601
IC 602
S-80734AN
RESET SENSE
1
2

Fig. 22

# 8. OPERATIONS AND SPECIFICATIONS

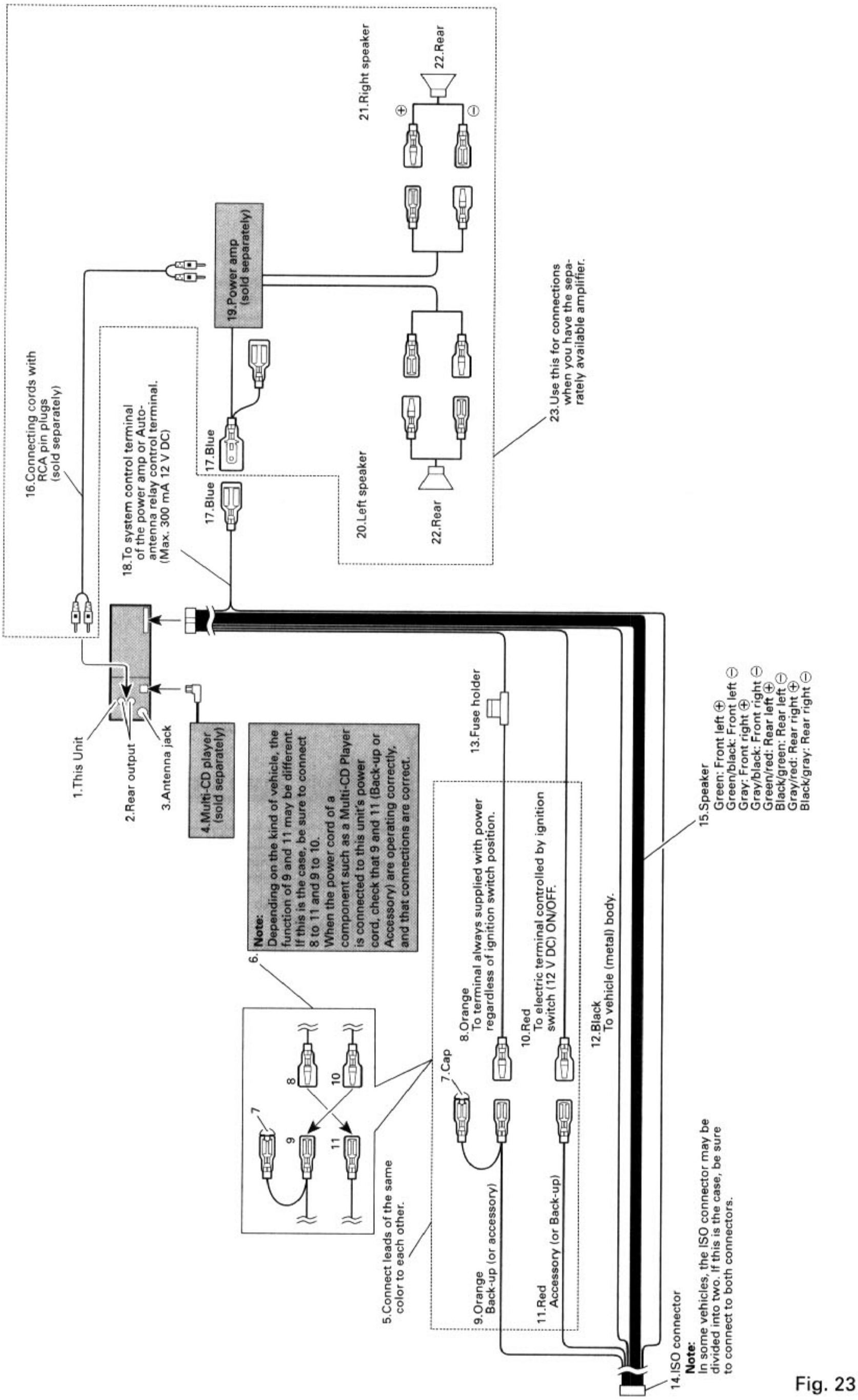
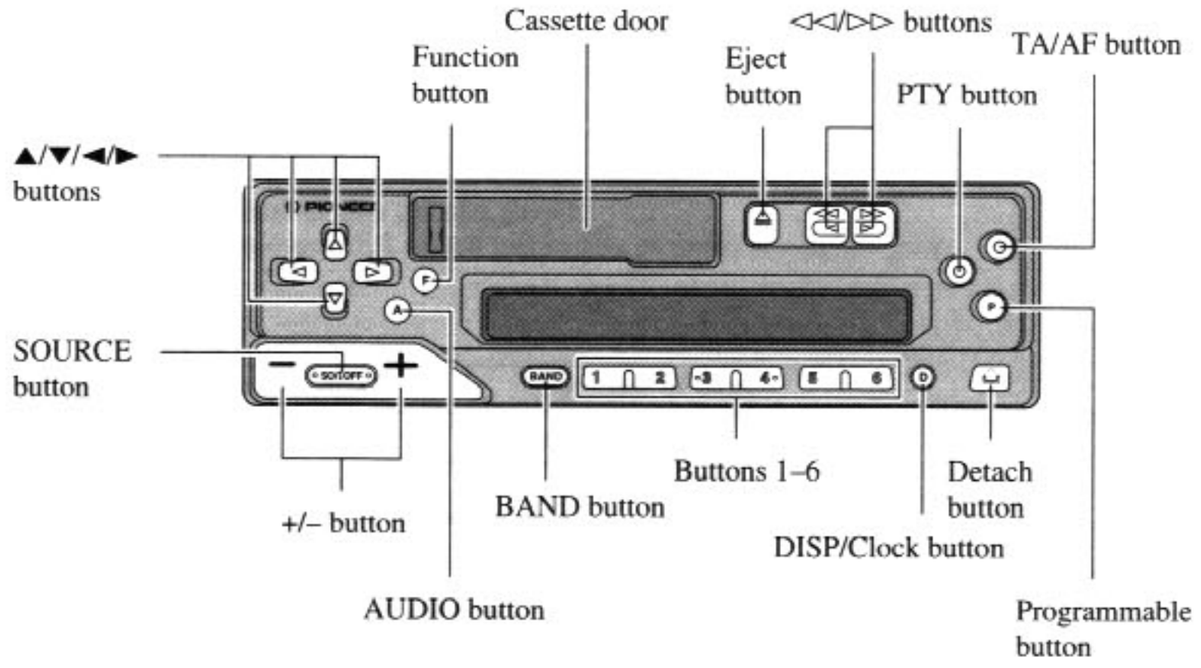

21.Right speaker
22.Rear
19.Power amp (sold separately)
16.Connecting cords with RCA pin plugs (sold separately)
18.To system control terminal of the power amp or Auto-antenna relay control terminal. (Max. 300 mA 12 V DC)
17.Blue
17.Blue
20.Left speaker
22.Rear
23.Use this for connections when you have the separately availlable amplifier.
1.This Unit
2.Rear output
3.Antenna jack
4.Multi-CD player (sold separately)
6. Note:
Depending on the kind of vehicle, the function of 9 and 11 may be different. If this is the case, be sure to connect 8 to 11 and 9 to 10.
When the power cord of a component such as a Multi-CD Player is connected to this unit's power cord, check that 9 and 11 (Back-up or Accessory) are operating correctly, and that connections are correct.
13.Fuse holder
15.Speaker
Green: Front left ⊕
Green/black: Front left ⊖
Gray: Front right ⊕
Gray/black: Front right ⊖
Green/red: Rear left ⊕
Black/green: Rear left ⊖
Gray/red: Rear right ⊕
Black/gray: Rear right ⊖
8
10
7
9
11
5.Connect leads of the same color to each other.
7.Cap
8.Orange
To terminal always supplied with power regardless of ignition switch position.
10.Red
To electric terminal controlled by ignition switch (12 V DC) ON/OFF.
12.Black
To vehicle (metal) body.
9.Orange
Back-up (or accessory)
11.Red
Accessory (or Back-up)
14.ISO connector
Note:
In some vehicles, the ISO connector may be divided into two. If this is the case, be sure to connect to both connectors.

Fig. 23

# Key Finder




# Specifications

## General

Power source ..... 14.4 V DC (10.8 – 15.1 V allowable)
Grounding system ..... Negative type
Max. current consumption ..... 8.5 A
Dimensions
(mounting size) ..... 178 (W) × 50 (H) × 150 (D) mm
(front face) ..... 188 (W) × 58 (H) × 19 (D) mm
Weight ..... 1.2 kg

## Amplifier

Maximum power output ..... 35 W × 4
Continuous power output ..... 22 W × 4
(DIN45324, +B = 14.4 V)
Load impedance ..... 4 Ω (4 – 8 Ω allowable)
Preout output level/output impedance ..... 500 mV/1 kΩ
Tone controls
(Bass) ..... ±12 dB (100 Hz)
(Treble) ..... ±12 dB (10 kHz)
Loudness contour ..... +10 dB (100 Hz), +7 dB (10 kHz)
(volume: –30 dB)

## Cassette player

Tape ..... Compact cassette tape (C-30 – C-90)
Tape speed ..... 4.76 cm/sec.(+0.14cm/sec.,–0.05cm/sec.)
Fast forward/rewinding time ..... Approx. 90 sec. for C-60
Wow & flutter ..... 0.13% (WRMS)
Frequency response ..... 40 – 14,000 Hz (±3 dB)
Stereo separation ..... 45 dB
Signal-to-noise ratio ..... 52 dB (IEC-A network)

## FM tuner

Frequency range ..... 87.5 – 108 MHz
Usable sensitivity
..... 11 dBf (1.0 µV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity .... 16 dBf (1.7 µV/75 Ω, mono)
Signal-to-noise ratio ..... 70 dB (IEC-A network)
Distortion ..... 0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response ..... 30 – 15,000 Hz (±3 dB)
Stereo separation ..... 40 dB (at 65 dBf, 1 kHz)

## MW tuner

Frequency range ..... 531 – 1,602 kHz
Usable sensitivity ..... 18 µV (25 dB) (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)

## LW tuner

Frequency range ..... 153 – 281 kHz
Usable sensitivity ..... 30 µV (30 dB) (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)

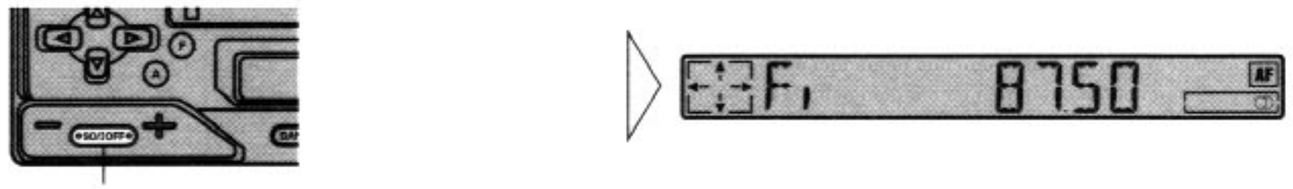
**Note:**

- Specifications and the design are subject to possible modification without notice due to improvements.

# Tuner Operation

## Basic Operation of Tuner

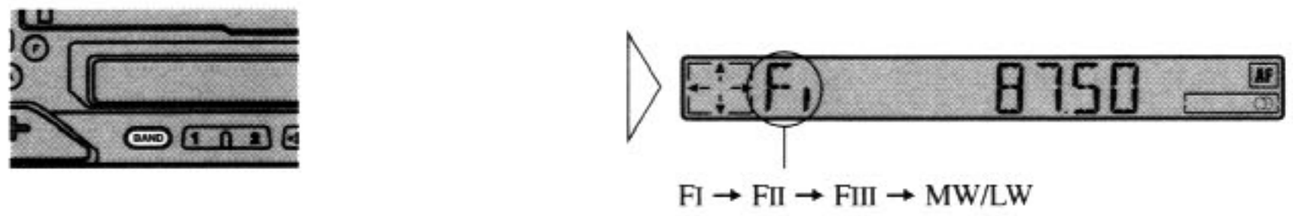
1. **Select Tuner.**




Each press
changes the Source ...

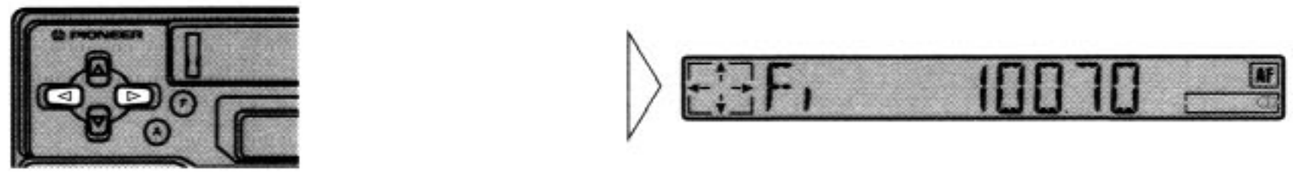
The program service name or frequency appears on the display.
("◯◯" indicator lights when a stereo station is selected.)

2. **Select the desired band.**




F1 → F2 → F3 → MW/LW

3. **Tune the receiver to a higher or lower frequency.**




This product's tuner lets you select the tuning by changing the length of the time you press the button.

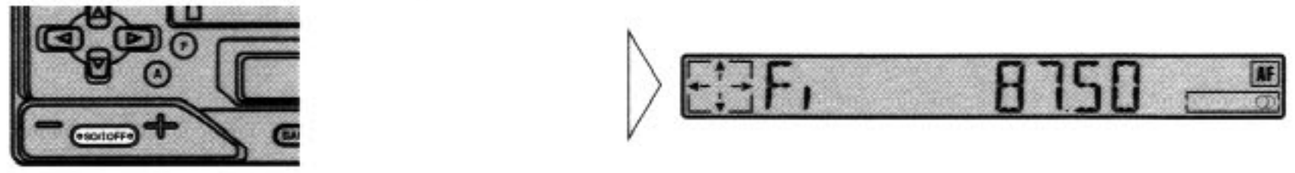
| | |
|---|---|
| Manual Tuning (step by step) | 0.3 seconds or less |
| Seek Tuning | 0.3 – 2 seconds |
| Manual Tuning (continuously) | 2 seconds or more |

**Note:**
- To select a weak broadcasting station that cannot be tuned in with the Seek Tuning function, tune in with Manual Tuning.

# Basic Operation

## Switching Power On

- **Select the desired source (such as the tuner).**

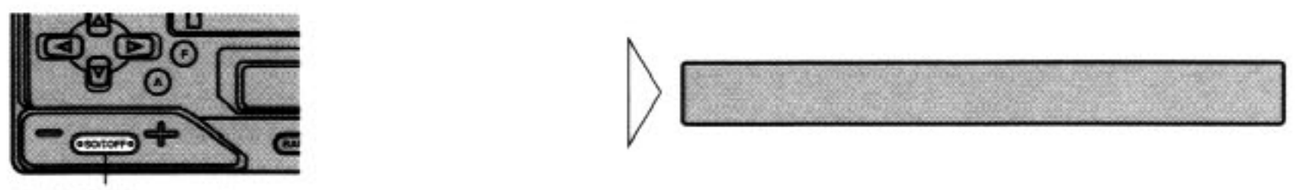



Each press of the SOURCE button selects the desired source in the following order:
Tuner → Tape → Multi-CD player → AUX

**Note:**
- In the following cases, the sound source will not change:
  - * No Multi-CD player is connected to this unit.
  - * No cassette tape is set in this unit.
  - * No magazine is set in the Multi-CD player.
  - * AUX (external input) is set to OFF.

## Switching Power Off

- **Switch the sources OFF.**



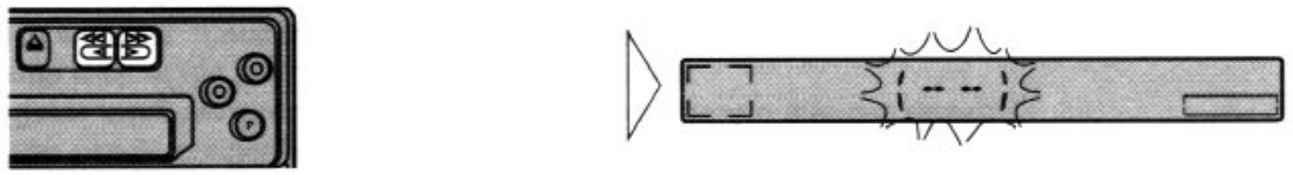
Hold for 1 second

## Fast Forward/Rewind

■ **Fast Forward**

While "<-->" is displayed, the system fast-forwards the cassette tape to the end of the current side.

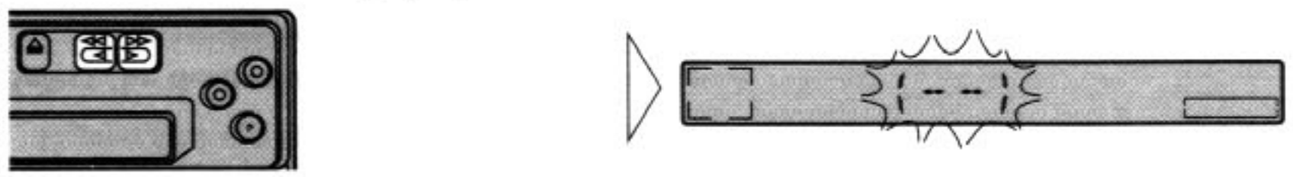
- **Fast-forward the cassette tape by pressing the button for the same direction as the tape play indicator.**



■ **Rewind**

While "<-->" is displayed, the system rewinds the cassette tape to the beginning of the current side.

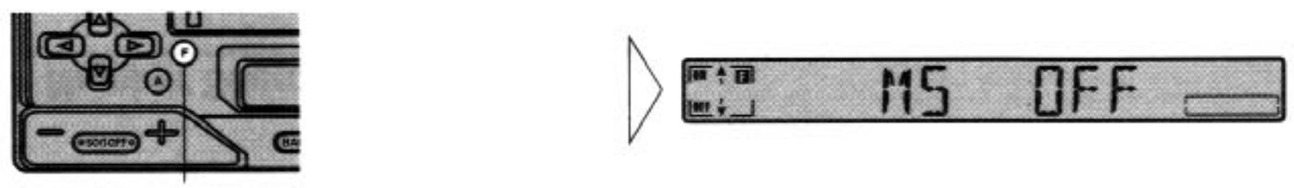
- **Rewind the cassette tape by pressing the button for the opposite direction as the tape play indicator.**



## Entering the Function Menu

In this menu you can select Tape functions.

- **Select the desired mode in Function Menu.**




Each press
changes the Mode ...

Each press of the Function button selects the mode in the following order:
MS → RI

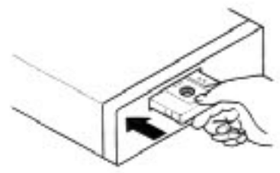
**Note:**

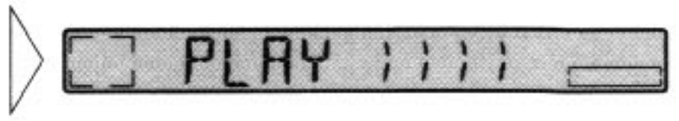
- You can cancel the Function Menu by pressing the BAND button.
- After selecting the Function Menu, if you do not perform an operation within about 30 seconds, the Function Menu is automatically canceled.

# *Using the Cassette Player*

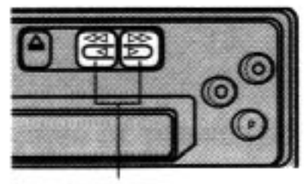
## Basic Operation of Cassette Player

1. **Insert the cassette tape.**

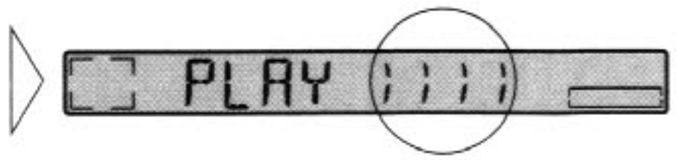




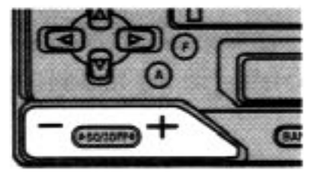

2. **Switch tape playback from side A to side B, or vice versa.**



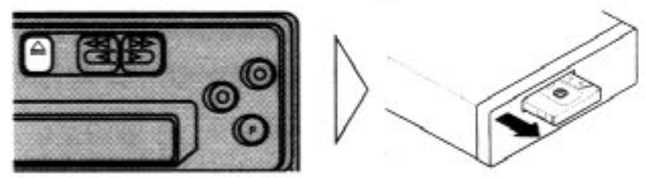
Same Time




3. **Raise or lower the volume.**



4. **Remove the cassette tape.**



**Note:**

- The Tape function can be turned ON/OFF with the cassette tape remaining in this product. (See page 46.)

## Switching the Multi-CD Player

It is possible to connect up to three multi-CD players by means of a multiple installation adapter. When two or more multi-CD players are installed, their priorities must be specified. Follow the multi-CD player instructions carefully, and set the address switches properly.

- **Select the multi-CD player you want to use.**

M1 → M2 → M3

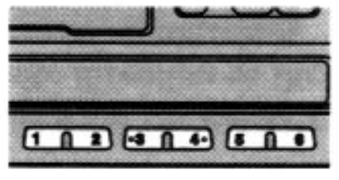
## Disc Number Search

### ■ Disc Number Search (for 6-Disc, 12-Disc types)

You can select discs directly with the 1 to 6 buttons. Just press the number corresponding to the disc you want to listen to.

**Note:**
- When a 12-Disc Multi-CD Player is connected and you want to select disc 7 to 12, press the 1 to 6 buttons for 2 seconds or longer.

- **Select the desired disc. (eg. Press button 3.)**



### ■ Disc Number Rough Search (for 50-Disc type only)

This handy function lets you select discs loaded in a 50-Disc Multi-CD Player using the 1 to 5 buttons. The 50 discs are divided into five blocks, with each of the 1 to 5 buttons assigned to a block.
For example, if you press button 1, discs 10 through 19 are searched in order, and then the disc with the lowest disc number is selected.

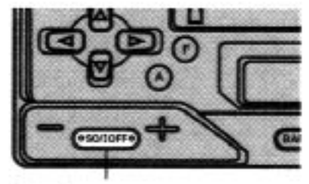
**Note:**
- Pressing button 5 lets you select the 50th disc only.
- Button 6 does not operate.
- Rough search of discs 1 to 9 is not possible. Use the ▲/▼ buttons to select a desired disc.

Using Multi-CD Players

This product can control one or more multi-CD players.

## Basic Operation of Multi-CD Players

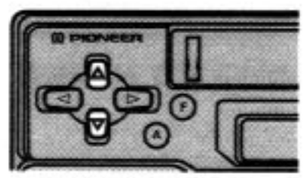
1. **Select the multi-CD player source. (See page 46.)**



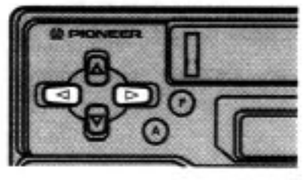
Each press
changes the Source ...

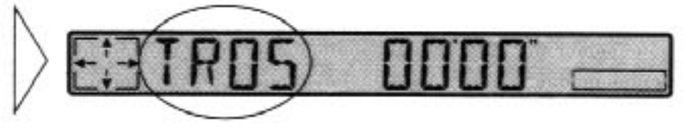
**Note:**
- The multi-CD player may perform a preparatory operation, such as verifying the presence of a disc or reading disc information, when the power is turned ON or a new disc is selected for playback. "READY" is displayed.
- If the multi-CD player cannot operate properly, an error message such as "ERROR 14" is displayed. Refer to the multi-CD player owner's manual.

2. **Select the desired disc.**

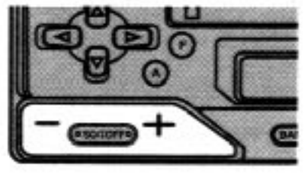


3. **Reverse or advance track by track.**

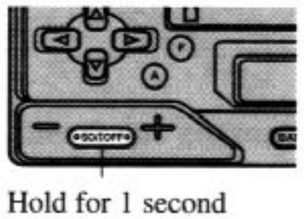





4. **Raise or lower the volume.**



5. **Turn the source OFF. (See page 46.)**



Hold for 1 second